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ABSTRACT

These proceedings contain forty three- to seven-page papers presented at an adult education research conference as well as two alternate papers, a background paper for a poster session, and abstracts and background papers of six symposia. Focus of the reports is on research needs, tools, and methods as they pertain to adult education. Issues addressed in the papers include the following: a framework for the analysis of current extra-institutional adult education practices: the judging process in adult education: dimensions of control and project work outcomes: development and assessment of an action research paradigm implemented with adult learners: utilization of oral history interviews and archival materials as primary sources of data for adult education research: theory, method, and appropriateness in adult education research: models of motivation for participation in adult education: ascription of needs in adult education: a conceptual representation of learning from the learner's point of view: and thecretical constructs applied to the adult educator as an adult learner. Symposia topics include research on distance learning, the California Adult Competency Survey, continuing professional education and the professional learning environment, research in interpersonal adult education, and adult education and allocation policy in Sweden. (MN)

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PROCEEDINGS

of the

TWENTY-FIRST ANNUAL ADULT EDUCATION RESEARCH CONFERENCE

May 7-9, 1980, Vancouver, B.C., Canada

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Opening Session
Background Paper

No Limits to Learning: A Psychological and Adult Education Perspective on a Recent Report to the Club of Rome

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INTRODUCTION

The "Club of Rome" first met in the Italian Capital in 1968 as a group of thirty individuals from ten countries - scientists, educators, economists, humanists, industrialists, and national and international civil servants. Italian economist and industrialist Dr. Aurelio Peccei convened this group to discuss problems concerning humanity and its survival. Since that time the Club of Rome (C.O.R.) has grown to become an informal, international association of thinkers representing over two dozen nationalities. They meet periodically to identify and discuss major problems facing humanity and have commissioned reports addressed to these problems. Among the better known of their reports is the study entitled The Limits to Growth (Meadows et al., 1974) wherein computer simulations of projected effects from depletion of natural resources, increased pollution, population increases and related economic and technological factors were reported. Each of the C.O.R. reports has drawn certain criticisms, but overall a major criticism of their activities has been that they have not sufficiently emphasized "the human factor" in their analyses and projections.

Recently, in an attempt to redress this imbalance, the C.O.R. commissioned a report on education and learning designed to investigate and address the aspects of what they call "the world problematique", wherein people find themselves increasingly unable to cope with local, national and international developments, threatening the survival of individuals, society, or even civilization itself. This report entitled No Limits to Learning: Bridging the Human Gap (Botkin et al., 1979) has recently been published and contains a number of provocative assertions and analyses. The purpose of this paper is to examine the assumptions and propositions about human learning which are implicit and put forth in the C.O.R. report, and to identify lines of theory and research in psychology that point to the development of a new learning theory that can guide research and development called for by the C.O.R. report.

A brief overview of some of the key ideas in the report is presented first and interested readers are referred to the publication text itself for a more fully developed account of these and related conceptions. The report was assembled by three committees, chaired by three authors, an American, James W. Botkin of Harvard University, a Moroccan, Mahdi Elmandrja, and Mircea Malitza, a Roumanian scholar. Preliminary parts of the report were subject to a number of reactions from scholars and educators in many parts of the world and the final report was presented in Salzburg, Austria, to an invitational seminar during June 1979. "The Human-Gap" referred to in the subtitle of the report is a reference to the perception by individuals that societal and technological developments are progressing at such a rapid rate that individuals are increasingly and seemingly inevitably helpless to cope with these changes.

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Furthermore, education and educational systems as currently conceived and established do not provide individuals with the learning experiences or opportunities to enable them to cope with such rapid change.

Early in the report the distinction is made between maintenance or "shock" learning and innovative learning. The majority of human learning, particularly as advanced by educational systems, is of the former kind. That is, people learn to adapt or to adjust to changes after they have taken place. Many times learning does not occur in any significant fashion until the "shock" of some catastrophe or the threat of a major upheaval. The notion is advanced that in the past maintenance learning served individuals and societies better than it does at present and that it will surely fail to serve in future since the tempo and volume of change is increased to the point where disaster, through nuclear holocaust or pollution, or other major human-oriented catastrophe may occur before sufficient time is available for suitable adaptation. In contrast, innovative learning is identified as the means whereby people prepare for change and even learn to bring about constructive change, renewal, restructuring, and problem reformulation. It is suggested that maintenance learning in and of itself is not a bad thing, but that it needs to be complemented with a much larger measure of innovative learning than has been encouraged or allowed for in the past.

Two approaches to innovative learning are advanced in the report as constructs being much in need of development in educational practice as well as in learning theory and research. These are called anticipatory and participatory learning. Briefly, what is meant by anticipatory learning is that people become prepared in considering long range future alternatives and possible alternative contingencies. They become skilled in forecasting, in simulation exercises and modelling. People learn to consider trends critically, to make plans and to, in fact, learn from the future by considering alternative possibilities. A consequence of anticipatory learning is that people will develop a sense of some control over their destinies and beliefs in their power to influence and to create outcomes and not merely to experience or be victimized by them.

A parallel notion is that of participation or participatory learning. The emphasis here is not upon receiving information that is developed or transmitted by others or in taking part in programs planned or organized by others, but rather joining with others to create, to conduct and modify, to evaluate educational programmes. Participation is conceived as involving cooperation, dialogue and empathy, with the overall goal of supporting human survival and human dignity.

These two notions are not advanced as being wholly positive in themselves nor as being really new ideas. They are described, however, as developments to be energetically pursued on all fronts; as necessary steps to prepare individuals to avoid threats to survival in definitive and productive ways. Much of the report is devoted to an elaboration of the notions of anticipation and participation, in suggestions on how they can be understood, how resistance to learning and to innovative learning can be overcome, and how these ideas can be put into practice. Although some practical examples are given, many of the ideas remain described at largely abstract levels and a number of the statements in the report do not go much beyond political claims and slogans. While this is unfortunate, it is perhaps to be expected from a relatively short (150 page) early analysis of these issues. In fact the report represents a call for more detailed analysis and development of these ideas and does give some suggestions as to ways to proceed.

Among the psychological assumptions underlying the C.O.R. report, perhaps the most central is the failure of learning theories to provide a viable framework from which to develop findings concerning innovative (anticipatory and participatory) learning. The failure of learning theories is, of course, well documented in psychological and educational literature (Bolles, 1972; McKeachie, 1974). If educational practice has failed to provide the means for learners to master the profound problems they face, it cannot entirely be faulted given that psychology has not produced an adequate explanation of learning. Likewise, educational research has not come up with a coherent set of findings to remedy the situation. Almost alone among psychological accounts, social learning theory (Rosenthal and Zimmerman, 1978; Bandura, 1978, 1979) holds some promise for guidance in this area, but as is discussed below, a variety of additional motivational and personality constructs appear to be necessary for a more complete picture. It seems also to be the case that alternative research designs such as were suggested by Argyris (1975) are needed to move from a study of maintenance learning to more participative modes of activity. This is also discussed further below.

In the next section of this paper I identify a number of areas of research in psychology which can be seen to co-exist more or less independently, but which all seem to bear on the notions of participatory or anticipatory learning, as discussed in the C.O.R. report.

Locus of Control and Learned Helplessness

Clearly, one difference between maintenance learning and innovative learning as the terms are used by the authors of the C.O.R. report is the extent to which individuals are seen as manipulated by their environment into making passive, often unconscious adaptations to it, as contrasted with taking direct action designed to change or influence their surroundings. Indeed the analysis of the "Human Gap" involves a sense of futility and inability to cope with rapid and massive technological change. An emphasis on anticipatory learning would involve personal change in the direction of internal locus of control (Rotter, 1966) wherein individuals learn to perceive that they exert influence in the outcomes of their actions and on the consequences attributable to those outcomes. The notion of development of interpersonal trust (Rotter, 1980) also appears to be necessary for participatory learning as described in the C.O.R. report. Mutual trust leading to cooperation among learners would seem to be a precondition of participatory learning.

Closely related to these ideas is the construct "learned helplessness" (Seligman, 1975) wherein an individual is conditioned to experience events as irretrievably beyond one's control. Whether or not the idea is most adequately conceived as learned helplessness or learned incompetence (Sergent and Lambert, 1979) the problem involves the learner coming to believe that no particular effort on her or his part will suffice to relieve the intolerable situation. This is allied to believing that it is not necessary to vote in an election because their vote does not really "count" anyway, the belief that it does not do any good to sign a petition or a letter to the editor or join a citizen's initiative group because the important decisions will be taken by politicians at some level that is unlikely to be influenced by such action, or that it is fruitless to undertake a particular programme of training since the likelihood of obtaining employment in any given area is low and beyond one's ability to influence. Adult learners might also come to believe that participation in governmental affairs is a waste of time since "the major powers will call the shots" and will influence if not induce all important changes affecting oneself or one's nation.

To provide a psychological basis for the propositions in the C.O.R. report knowledge about locus of control and learned helplessness needs to be related to developments in other pockets of psychological theory and research and that these relationships be drawn together to a focus on innovative learning in both its participatory and anticipatory forms. The study of locus of control and learned helplessness in teaching and learning situations needs to be studied further (Note: Perry and Leventhal, 1980).

Affiliation Motive and Cooperation

As indicated above the notion of participatory learning as advanced by the C.O.R. report is essentially a cooperative social activity. Whereas considerable stress has been placed in western psychology on socially derived achievement motives (McClelland, 1961; Atkinson and Feather, 1966), comparatively little attention has been paid to the corresponding need for affiliation. The affiliation motive or closely related socially based motivational constructs related to interpersonal cooperation would be essential aspects of participatory learning as conceived by the C.O.R. report authors. The comparatively small literature on affiliation motivation largely involves the relationship between the construct and anxiety or fear (e.g. Schacter, 1959), and relationships with conformity and dependency (cf studies summarized by Marlowe and Gergen, 1969). Little has been reported directly relating affiliation need with cooperation. A check of the subject index to The Handbook of Social Psychology, Second Edition (Lindzey and Aronson, 1969) reveals "need for affiliation" mentioned on a total of seventeen pages, whereas "cooperation" is indexed on forty-seven pages but there is no overlap of references to the two constructs. Clearly, one area of research not well developed in social psychology which seems directly relevant to the C.O.R. proposals is the relationship between affiliation need and cooperation in problem finding and problem solving.

Participatory and Anticipatory Learning and Problem Finding

Problem finding (Arlin, 1975) may well be an important link to operationalizing the twin aspects of innovative learning identified in the C.O.R. report. The report authors acknowledge (Botkin et al., p.30) that problem solving has been overemphasized and that creative participation must stress problem detecting, perceiving and formulating. Furthermore, an exclusive emphasis on problem solving often results in rivalry and in competition as opposed to cooperation. The challenge to individual competence which induces fierce competition is seen as being diffused in problem finding activities. It may be as Arlin (1975) suggest that problem finding can be elevated to a formal stage of human development. This comparatively new area of psychological theory and research clearly requires additional development and in particular reference to the notions of participatory and anticipatory learning. One relationship between problem finding and anticipatory learning seems clear. If people are to learn to deal effectively with rapid societal change they are going to have to sharpen their problem finding skills as opposed to waiting until the problems find them. Problem finding thus seems to be a necessary link between anticipatory and participatory learning. An apparent implication of Arlin's notion that problem finding is a fifth Piagetian stage in development, however, would be that we cannot expect children or young people to develop problem finding skills. If this is true, how does education prepare good problem finders? This is an area ripe for theroizing and empirical investigation.

Innovation and Creativity

Innovative learning and indeed problem finding must have something to do with the area of research and development in psychology which has been labelled variously creativity or originality. Indeed a technique recently reported by Torrance (Torrance and Reynolds, 1978) is noteworthy. The problem addressed is to cause people to imagine the future in such a clear and detailed way that it is possible actually to learn from future possibilities. Merely to ask people to write essays forecasting details of the next twenty years, for example, does not often yeild very rich or elaborate information. It is true that the unusually creative individual is sometimes able to spin a wonderous tale, but many people have difficulty in constructing descriptions of possible futures given such instructions. Torrance's innovation is to have bright young people imagine themselves approaching the end of their careers and write soliloquies describing what has been accomplished as the look back over their lives and accomplishments. This sort of retrospective future analysis yields far more richly detailed and innovative statements. Furthermore, Torrance and Reynolds report interesting differences as a function of adolescent alienation (students scoring low in alienation produce more fluent soliloquies) and a number of statistically significant differences associated with cerebral dominance, typically favouring right dominant or "hemispherically integrated" individuals. This recent work by Torrance should cause those who are skeptical of possibilities of learning from the future to reassess their positions.

Related to retrospective future analysis is research reported by Flannigan (1978) concerning a broad scale application of the critical incidents technique to quality of life ratings of individuals at three ages along the life span. Flannigan asked large numbers of individuals to rate degree of importance and amount of satisfaction with a number of quality of life indicators. Several interesting patterns emerged, including gender and age differences, and important actual-ideal satisfaction gaps and changes over age groups. To those for whom quality of life is a potential major problem now or in the future, an application of Flanningan's technique combined with Torrance's retrospective future scenerios seems to be a worthwhile prospect, especially in the context of an educational setting. Longitudinal research in these areas is yet to be reported.

Research in Educational and Social Psychology

Argyris (1975) has advanced a number of objections to research methodology typically pursued in experimental social psychology. Similar objections could be raised about educational research, i.e. that undue deception, manipulation and artifically contrived circumstances are employed, in many empirical studies. Argyris further claims (1976) that individuals often are unaware of the discrepancies between theories which govern their action and those which they publicly adhere to. He labels these Theories in Use and Espoused Theories respectively. Whereas considerable "lip service" in educational circles has been given to concepts of student participation and open education, in reality both research methodology and educational practice often have been contrived and heavily manipulated. Argyris identified alternative ways to conduct empirical research wherein the participants not only are volunteers but are willing partners of the originating experimenter, sharing with her or him the likelihood of beneficial outcome if the experiment is successful. Moreover, Argyris reports considerable difficulty in teaching graduate students at Harvard to operationalize the distinction between what he calls Model I and Model II research methods. While they are able to learn to describe and identify the nonmanipulative Model II approaches, when asked to design studies to address important problems, they invariably resort to conventional Model I methodology. This highlights again the gap between theories espoused and theories in action. Model II (participatory, nonmanipulative methodology) is well suited for studying anticipatory learning and appears to be highly conducive to investigating problem finding phenomena as well.

Among reasons why it is often so difficult to translate nonmanipulative ideas into practice is extensive habitual reliance upon and experience with research involving deception and manipulation. Moreover, western (male dominant) culture has stressed competitive achievement strivings and individual winners over cooperative situations where all participants might stand to "win" and where there may conceivable be no "loosers". Jane Baker Miller in her book Toward a New Psychology of Women (1976) identifies the need for affiliation as a characteristic particularly encouraged in western women, whereas need for achievement has been largely within the male domain. Corresponding cooperation - service and competition strivings characterise cultural expectations for the two sexes respectively. Miller argues that many of the serious problems facing society today cannot adequately be addressed by either of these approaches alone. What is needed are new efforts at problem resolution using combined strengths from both competitive (typically male) and cooperative (female) orientations. At first glance this may seem to be a contradiction of terms, but precedence exists for combinations. For example Bales (1968) has characterized individuals functioning in groups according to a model composed of three bipolar dimensions. The vertical dimension is power or domination, the right-left dimension is affiliation or acceptance, and the forward-back dimension is achievement orientation. Two of the octants thus described would include individuals who were high in both affiliation and achievement orientation. It seems unreasonable to presume that these would in reality be null sets.

In the field of applied educational research known as adult education there have been for some time attempts to implement ideas related to those propounded in the C.O.R. report. For example, under the rubric "Lifelong Learning" (Cropley, 1977) adult educators have promoted non-credit recurrent voluntary education. Educational programs have been designed for persons who desire to upgrade or extend their skills into new areas - to prepare for new careers or new avocations, or who desire to explore and extend their capabilities for expected but as yet unknown futures. Increasingly, these programs have become popular with both women and men seeking to enlarge their roles and question the cultural stereotypes they find themselves "locked into". Assertiveness training, martial arts, new language skills, and physical fitness, not to mention yoga and zen provide adult learners with possibilities of acquiring new senses of internal locus of control, reducing learned helplessness and developing problem finding skills and strategies in group settings. In this area educational practice has apparently overrun psychological theory and research - providing direct challenges to both.

Toward A Psychology of Anticipatory and Participatory Learning

One key assumption of the C.O.R. report seems to be clearly justified. That is, there is no unified learning or behavior theory in psychology to properly account for people coming together on a voluntary basis to seek identification of problems that they will be called upon to face, learning from the future as well as from the past, and developing plans to influence that future so as to avert or otherwise properly deal with upcoming threats to their dignity and survival. The women's movement, citizen's protests in Pennsylvania over planned release into the atmosphere of radioactive krypton gas at Three Mile Island or the demonstrations at the Trident Nuclear Submarine Base in Washington State taken with numberous other popular initatives throughout the world provide natural life examples of individuals coming together voluntarily, partly in response to maintenance or shock learning, but also with a view to creating change that can be of a type identified as participatory and anticipatory learning. Lines of research are already well established in the case of a number of these important areas, for example, changes in western women's roles (Hoffman, 1977). However, it is still the case that large gaps exist in psychological accounts of participatory phenomena such that it does not seem possible at this time for educators to properly make use of learning theory in planning individual and group learning dynamics.

The psychological constructs locus of control, interpersonal trust and learned helplessness are directly related to the personality dynamics of those who would voluntarily participate in group learning activities as well as those who would withhold participation. Affiliation need and motivation for cooperation form motivational prerequisites of participatory learning. Problem finding appears to provide a basis for explaining anticipation and perhaps the facilitation of participation. Social learning theory, in particular in a more teleological manner than typically allowed (Rychlak, 1979) seems important to account for change under the conditions of innovative learning. Educational and psychological research must inevitably move toward the Model II designs of research in service of mutuality in order to address issues concerning participatory and anticipatory learning more directly.

In their report, the Club of Rome challenge psychological theory and research to provide new bases for educational development and practice. Such outcomes would certainly influence instructional techniques profoundly. Researchers and practitioners in adult education as well need to respond to these challenges. The time is, or should be, long past when we can define participation in terms of the number of students who show up, instruction as telling or showing, and anticipation as intuition or lucky guessing.

NOTE

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General Sessions Background Papers

Descriptive Concepts in Adult Education: Could Classification Split the Millstone?

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INTRODUCTION

The study reported here comprises part of a continuing research effort by the author to develop an appropriate paradigm for increasing the clarity, precision, and commonality in the use of concepts which are applied by researchers to the definition and description of adult education events. The problem thus identified is believed to severely limit the impact of research in improving the efficiency and effectiveness of practice in the field, and to retard the generation of a coherent body of knowledge about adult education.

The purposes of this study were, firstly, to determine the appropriateness of classificatory models and procedures as means to a solution of the problem since, historically, the development of classification systems of adult education events or components of events (e.g., systems of techniques, media, agencies, and content) has been the procedure adopted in tackling this problem. Secondly, the study was directed toward the initial formulation and testing of a descriptive model along the lines indicated in the taxonomic study.

I. CLASSIFICATION

Research Procedures

Two approaches were used in this part of the study. Firstly, within the framework of modern taxonomic theory, (ref., e.g., Sneath & Sokal, 1973; Williams, 1971), the assumptions, input requirements, procedural demands, and output characteristics of alternative forms of classificatory procedure were conceptually applied to the population of adult education events, within the constraints implicit in the problem. This was to determine which, if any, taxonomic models and procedures would be appropriate to the problem, and their probable relative efficacy in this task. Secondly, the taxonomically most advanced classification systems of adult education events--those of Coolie Verner (e.g., Verner, 1975)--were analyzed (together with a number of lesser systems in common usage) through a conceptual analysis (e.g., Soltis, 1978), in order to identify the types of classification used and the types of taxonomic models produced, and to determine the degree to which their strengths and weaknesses supported or refuted the conclusions drawn from the theoretical study of taxonomic procedures and models.

Results

From the study of taxonomic procedures and models it was determined that, if a taxonomic model were to be used as the basis for a solution to the problem, it would have to be a natural system (i.e., one comprising taxa with a high information content or predictive value across characters), not an artificial one, since the latter type cannot be applied effectively to a wide diversity of functions. Similarly, a population-based system, as distinct from a typological one, was found to be necessary since the latter type could serve as a solution to the problem only with a highly clustered entity population: a requirement which is not characteristic of adult education events.

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It also was ascertained that the classification process would have to be an inductive one, since effective deductive classification requires that the population being classified comprises a system of analyzed entities (Cain, 1958), that is, one in which the principles governing the composition and structure of taxa are known a priori; this is not presently the case with adult education events or their components.

Of the primary types of inductive classification (and their associated models), the hierarchical evidently is preferable to the nonhierarchical, since hierarchical systems maximize parsimony in the definition of taxa, greatly facilitate the comprehension and application of the systems, and provide a range of definitional precision which allows users to work at the level most appropriate to their specific research problems.

Of the main hierarchical types of classification, a polythetic, agglomerative approach (that is, one which progressively combines entities into taxa on the basis of their similarities or differences determined across a large number of variable characters) was strongly indicated as being necessary, since monothetic, divisive classification (that is, one which progressively divides the population into taxa on the basis of variability determined on only one or a few characters for each divisive decision) is not appropriate to the formation of natural classification systems. Effective monothetic divisive classification also demands a high degree of constancy and fidelity of the key characters states; a demand which, in all probability, cannot be satisfied by the population being considered here. However, polythetic classification rests on two assumptions which cannot be met on the basis of our existing knowledge of adult education events. These are that there be meaningful and stable discontinuities in the distribution of character states among the entities of the population, and that there be a high level of association in the variation across characters (among entities). If these two assumptions are not met, any classification system formed from the population can be only arbitrary and artificial.

The diversity of both the entity population (adult education events and their components) and their descriptive characters, and the demands of the field for methodological objectivity and replicability, were found to indicate the need for numerical classification procedures (that is, those using some specific, highly objective, and replicable mathematical clustering or divisive technique), rather than subjective procedures (that is, the classical use of informed and expert judgment).

Thus, in this examination of taxonomic models and methods, it was determined that, for none of the types of model which would have the characteristics necessary to substantially meet the problem, is there available a classificatory procedure that is based on assumptions which appear to be realized in the population to be classified. Any systematic classification in the near future also was found to be ruled out on pragmatic grounds, since the following prerequsite tasks have still to be undertaken effectively: (1) definition of the entities to be classified, in order that they may be identified and described; (2) identification, clarification, operationalization, and scaling of the characters to be used in describing the entities;

and (3) delimitation of the boundaries of the population of entities.

Data simplification or ordination procedures (such as principal component analysis and factor analysis) have been used with biological populations having characteristics similar to those of adult education events (Greig-Smith, 1964; Lance & Williams, 1967). However, aside from the fact that these still demand the above noted prerequisite tasks, they suffer from some further practical difficulties, especially their distortion of the empirically observable data base, their sensitivity to missing data, and the problem of the indeterminacy of solution.

The analysis of selected classification systems in the discipline indicated that their authors evidently were aiming, appropriately, to produce highly natural and population-based systems. However, the procedures applied in the classifications evidently were more of the monothetic divisive type, and hence inappropriate to the development of such systems. Consequently, the systems produced are artificial and highly typological in nature. Although the systems (and their inferred procedures) were judged to be hierarchical, they generally were not presented as such, leading to considerable conceptual confusion in their interpretation and application.

The invariable use of subjective (rather than numerical) procedures also was judged to contribute to the numerous inconsistencies in the application of characters, and to the general vagueness in the definition of characters, character states, and defining characteristics of the taxa; all of which were evident in these classification systems.

This analysis also supported the following findings of the study of taxonomic models and procedures: (1) the high level of continuity in the variation along characters in the population of adult education events; (2) the lack of precision in the definition of characters, character states, entities, and the entity population itself; and (3) the low level of association in the variation between presently identified characters.

Conclusions

The general conclusion drawn from this part of the study was that any classification of adult education events and their component concepts is unlikely to be efficacious in meeting the problem identified, and could not be undertaken with any degree of objectivity or precision until there has been considerably more clarification of the input concepts necessary for such a study.

On the basis of these analyses, the author formed the opinion that increased descriptive and definitional precision in adult education could best be achieved through the development of a paradigm in which events are defined and described on the basis of their positions on selected, precisely characterized, qualitatively different, and quantitatively scaled dimensional concepts.

II. A DIMENSIONAL PARADIGM

A model of the type indicated in the preceding study has been developed by the author, primarily to test the applicability of a dimensional descriptive framework to the field, but also to identify and test possibly valuable structural components of a non-taxonomic descriptive paradigm for the discipline.

Research Procedure

The model was developed through an iterative and cyclical formal modeling procedure (Diesing, 1971), using as its data base those descriptive concepts which were current in the discipline: deriving its basic components and their interrelational functions from the universal and situation-specific elements which were indicated by the literature of the field, and identifying and clarifying variable descriptive concepts through this framework with the application of deductive and conceptual analysis.

The Configurational Model

The model--termed the configurational model--has been formulated from a perception of adult education events as arbitrary, continually variable, multidimensional systems of interdependent relationships. It is based on the recognition of a limited number of fundamental components (elements) of adult education events: the learner, agent, content, goal, and hardware elements; some of these primary elements being further divided into a limited number of derived elements (e.g., the internal and external agent elements).

The variability within these elements, and of their relationships--between and among each other, with the environment, and over time --is viewed as being clustered on a number of dimensions of variability. These are identified by functions which define the quantitatively variable quality of each dimension: the elemental functions identifying variable qualities of the elements, and the relational functions identifying interactive (process) or static relationships between and among the elements. Regardless of the level of measurement used, variability within a dimension thus is perceived as a quantitative matter, whereas that between dimensions identifies a qualitative difference. The dimensions are of two types: (1) elemental dimensions describing variability within an element, and (2) relational dimensions describing variability between or among elements or dimensions. Any given element of a relational dimension may be either within the event or within the environment.

Relational dimensions are perceived as falling on one of two configurations: the vertical and the horizontal. On the basis of the precision with which the elements are known in an event, the vertical configuration dimensions identify the position of the elements in relation to the precision of their definition in an actual teaching-learning event, or in relation to each other in terms of the precision of their definition in an actual teaching-learning event. The horizontal dimensions identify the structural and process relationships between and among elements in an event.

The two dimensions are perceived as being surrounded by the environment, and immersed in a matrix of time.

The development, testing, and modification of this model to date has been based on the analysis of descriptive materials in the discipline: those pertaining to the definition of the field and discipline (e.g., Boyd, 1966), normative philosophies directed (or relevant) to the field (e.g., Knowles, 1970), and descriptions of adult education events and research into instructional effectiveness (e.g., Seaman, 1977).

Only limited attention has been paid to date to the identification of elemental functions. However, of the relational concepts that were interpretable in the literature reviewed (a small number of concepts being entirely too vague to identify their intent), all were relatable to eleven horizontal and two vertical functions (excluding the use of standard mathematical functions).

Conclusions

The principal conclusions arising from the testing of the configurational model were that a dimensional descriptive paradigm is indeed applicable to the diversity of variability that is addressed within the discipline of adult education, and that the configurational model may well serve as a suitable system of this type. However, as it presently is developed, the configurational model offers too great a diversity of descriptive concepts for many practical purposes; its suitability as a general descriptive framework for the discipline probably being conditional on the future development of a third configuration to encompass the variable magnitude of its other components, and on the generation of explanatory theoretical systems which are based on its constructs. It also should be observed that the utility or otherwise of any pre-theoretical system, such as this, remains an open question.

Discussion

This type of model avoids the assumptions and the most intractable prerequisite requirements of taxonomic models and procedures, and has the advantage of facilitating a high degree of precision in the identification and use of descriptive concepts, while permitting flexibility in the range of variability which these describe within any given event. Among other desirable features of the model, at this stage in the development of the discipline, are: (1) that it is open-ended, to the extent that dimensions may be added to or deleted from it; (2) that it provides a basis for hypothesis generation, through its indicating of possible combinations of dimensional variability; (3) that it addresses the full range of theoretical possibilities imminent in events, thereby revealing possibly unexplored areas of practice in the field; (4) that it could serve as a most satisfactory framework for placing in relative perspective the diverse definitional views of the field and its components; and (5) that it could serve as the needed integrating framework for the lifelong learning and lifelong education philosophical orientations to the field and discipline.

Since the level of measurement and the precision of specification within each dimension are left open to the researcher, the model also has the potential of encompassing a wide range of research methodologies (from highly "qualitative" to highly "quantitative"), and of permitting the application of the full range of analytical techniques (from subjective description or comparison to multivariate procedures).

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Testing the Theory of Margin Using a Population of Widows

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ABSTRACT

A systematic randomized sample of 100 widows (aged 36-92) was interviewed in Madison, Wisconsin in order to test the theory of margin. This developmental theory was designed for adult education but has applicability for social work and other helping professions. The first three questions on the interview schedule were designed to test the theory. The theory has three components: load, power, and margin which were operationalized as the problems widows encountered, the resources they utilized for their problems, and the usefulness of resources used. Chi-square analysis was performed to determine which of 10 independent variables were associated with the dependent variables (the components of the theory). Following this initial analysis multiple regression analysis was employed in determining which independent variables were predictive of load, power, and margin. "Attitudes toward widowhood" was the most powerful predictor; the more negative attitudes a widow reported the more likely she was to experience a larger number of problems and to utilize a larger number of resources in trying to cope with her problems. The multiple regression analysis represented an initial test of the theory of margin and resulted in providing evidence of its reliability and validity.

INTRODUCTION

The theory of margin (McClusky, 1963, 1970, 1971) is a developmental theory that builds upon the works of Buhler (1968); Erikson (1959,1963); and Peck (1968). It was designed as a tool to be used in studying the course of psychological development in adult years. This theory expands upon previous developmental theories by acknowledging the dynamic aspects of life while allowing for time specific examinations. Graphically, McClusky's theory of margin is conceptualized as:

Figure 1 - McClusky's "Theory of Margin"

$$\text{Load (of living)} \begin{cases} \text{Internal Load} \\ \\ \text{External load} \end{cases}$$

Margin --

Power (to carry the load)

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Load consists of two component parts, an external load and an internal load. The former is composed of responsibilities an individual must meet involving circumstances outside of oneself. The latter includes self-imposed life expectations. Thus, the load consists of internal and external expectations and situations an individual copes with in maintaining autonomy. In this research, load was operationalized as the self-identified problems women had encountered in widowhood. Power includes the combination of interacting factors including one's physical, social, and mental capabilities; as well as one's abilities, possessions, and allies that are utilized in performing one's life taks effectively. Power was operationalized as the number of formal and informal resources a widow utilized in coping with her problems (load). The relationship between an individual's load and power is margin. Margin is seen as a function of an individual's number of alternatives or the ability to utilize one's power factors effectively. Margin was operationalized as the usefulness of the resources used with each specific problem in alleviating that particular problem.

The theory of margin was designed for studying the later years of life which McClusky (1970) characterized as a period in which significant and drastic changes in the load-power relationship are taking place. Widowhood is a period involving significant and often drastic changes in a woman's life (Lopata, 1973, 1976; Barrett, 1973; Atchley, 1975; and Silverman, 1974). Thus, widows were chosen as an appropriate population for an initial test of the theory of margin.

Figure 2 - The Theory of Margin as Applied to This Research

Internal Load = Number of Internal Problems

Load = Number of Problems

External Load = Number of External Problems

Margin = Usefulness of Power Factors

Power = Number of Resources

Subjects

A systematic randomized sampling procedure without replacement was employed utilizing the Madison City Directory in order to approximate a representative probability sample. A sample pool of 410 names was generated. The list was numbered and then a table of random numbers was used in generating the 100 participants. The researcher conducted all telephone inquiries to set up interview appointments.

The mean age for the sample was 67.5 years. Eight percent of the respondents were young widows (less than 55); 28% were middle aged (55-64); while 64% were 65 or older. The majority (67%) of respondents were not currently working although when they did work, 65% held white collar jobs. Seventy four percent of the respondents had received at least a high school education. The median income was reported to be approximately $8,000 a year.* The respondents yielded a mean number of children still alive of 2.4. The two main religious preferences were Protestant (60%) and Catholic (34%).

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*An approximate figure is available because the income measure was a scale divided into thousands of dollars with a high income of $10,000 or above

Procedure

Interviews took place in the widow's homes and were conducted by six older women (66-76) who were themselves widowed. These women were trained in the use of the structured interview schedule through role-plays and behavioral rehearsal techniques. Seven training sessions were conducted each lasting between two and three hours. Frequent phone calls during the interviewing process were made between the interviewers and the researcher.

The first three questions on the interview schedule were used to test the theory. The first question asked the widows to look at a list of 25 problems and identify which problems they had encountered; the second question asked the widows to look at a list of 25 resources and identify which they had used for each identified problem; and the third question asked how useful each set of resources had been in alleviating each specific problem. The number of problems a widow had encountered in widowhood was used as her load score; the number of resources she used was her power score; and an average of how useful the chosen resources were became her margin score. The margin score ranged from one to five, one being not at all useful and five being so useful that the problem was alleviated. These then were the three dependent variables. The ten independent variables were: age, duration of widowhood, educational level, length of husband's illness, income, number of children, quality of marriage, attitudes toward widowhood, religion, and occupational level.

Chi-square analysis was employed to determine which independent variables were associated with each of the dependent variables. Multiple regression analysis was then utilized in generating the significant predictors of the dependent variables: power (resources), load (problems), and margin (usefulness).

RESULTS

Only three of the twelve independent variables were predictive of dependent variables. Attitudes toward widowhood was predictive of four dependent variables, i.e., the more negative one's attitudes toward widowhood: (a) the more problems widows reported having encountered (resulting in an increased load); (b) the more external problems widows reported having encountered (resulting in an increased external load); (c) the more resources women utilized in widowhood (resulting in an increase in power); and (d) the more resources widows used for internal problems encountered (again resulting in an increase in one's power).

Educational level was predictive of the total number of resources used in widowhood; as educational level increased the widows reported that they utilized more resources. In addition, widows who had been employed in white collar occupations reported that they utilized more resources for their external problems than widows who had been employed in blue collar occupations.

An interesting result in terms of the theory testing was that none of the independent variables was predictive or associated with margin.

DISCUSSION

"Attitudes toward widowhood" is the single most powerful predictor in this study. It is interesting that although negative attitudes toward widowhood was predictive of more problems encountered, it was also predictive of a higher resource usage. This relationship may be a contributing factor in the fairly high usefulness ratings (average score = 3.9). One could conclude that the sampled widows were coping well since they all (regardless of number of load factors) were able to find resources (power factors) that would enable them to carry their load. In other words, as their load (number of problems) increased, the sampled widows increased their power (used more resources). This resulted in fairly stable margin (usefulness) rating scores.

None of the independent variables were predictive of "usefulness" (the margin score). This non-significance may be due in part to the scaled construction which involved averaging the individual usefulness ratings and producing one averaged score, thereby risking a loss of information. On the other hand, the theory of margin offers another explanation. McClusky (1970, 1971) posits that margin is a ratio between one's load and power. Working with this assumption margin is dependent on load and power. Load and power are dependent on outside forces which McClusky has labelled life forces; but margin is a reflection of one's load and power. Margin is conceptualized as the ability to utilize one's power factors effectively in coping with one's load. It is therefore not surprising that the independent variables were not predictive of margin. This lack of predictive ability provides evidence that the theory of margin is reliable (since it held for all 100 sampled widows) and valid (since there were predictors of load and power but not of margin).

Additional evidence might be provided if we constructed a further test utilizing load and power as independent variables and margin as the dependent variable. If this test explained a large percentage of the variance and resulted in significant predictors more evidence would be provided as supportive data for the theory of margin. The present findings represent an initial step in theory testing. It should be noted that this initial step has contributed supportive data to the theory but further research is needed in order to corroborate or refute the results of this study.

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The Effects of Participation in Learning Activities on the Relationship Between Social Stress and Health

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Social, economic and technological change is occuring at an unprecedented rate so that people experience seemingly uncontrollable changes in their daily lives. The effects of these changes has been referred to in popular literature as future shock (Toffler 1970), and in the health care and epidemiology research literature as social stress (McQuade and Aikman 1974, Lazarus 1966). Many studies have identified a temporal relationship between the experiencing of social stress and subsequent decrements in levels of health. Although the evidence has been derived from widely divergent populations, a wide range of medical institutions, and from both epidemiological and experimental studies, the strength and causal nature of the relationship between social stress and illness has not yet been thoroughly explained.

THE PROBLEM

It has been recognized that not all individuals who experience social stress become ill. Some individuals appear to have immunity to stress induced illness or use coping strategies to resist the harmful effects of stressful experiences. Researchers are now seeking to identify the specific behaviours, skills and characteristics which might enable people to maintain their health or to develop immunity to stress-induced illness. It is possible that participation in learning activities may be a coping strategy, or that the actual process of learning rather than the outcomes of the learning process is a means of combating the deleterious effects of stress.

The literature of adult education is replete with references to the role of adult education in meeting the challenges of social change. Verner (1964, p4) identified the dominant theme of contemporary adult education to be that of adjustment, "to help adults accommodate to the rapid technical and social changes so characteristic of our time." If active learners do not suffer stress-induced illnesses when others similarly at risk do suffer such illnesses a new function for adult education might be identified - the function of promoting homeostasis of physiological and psychological health.

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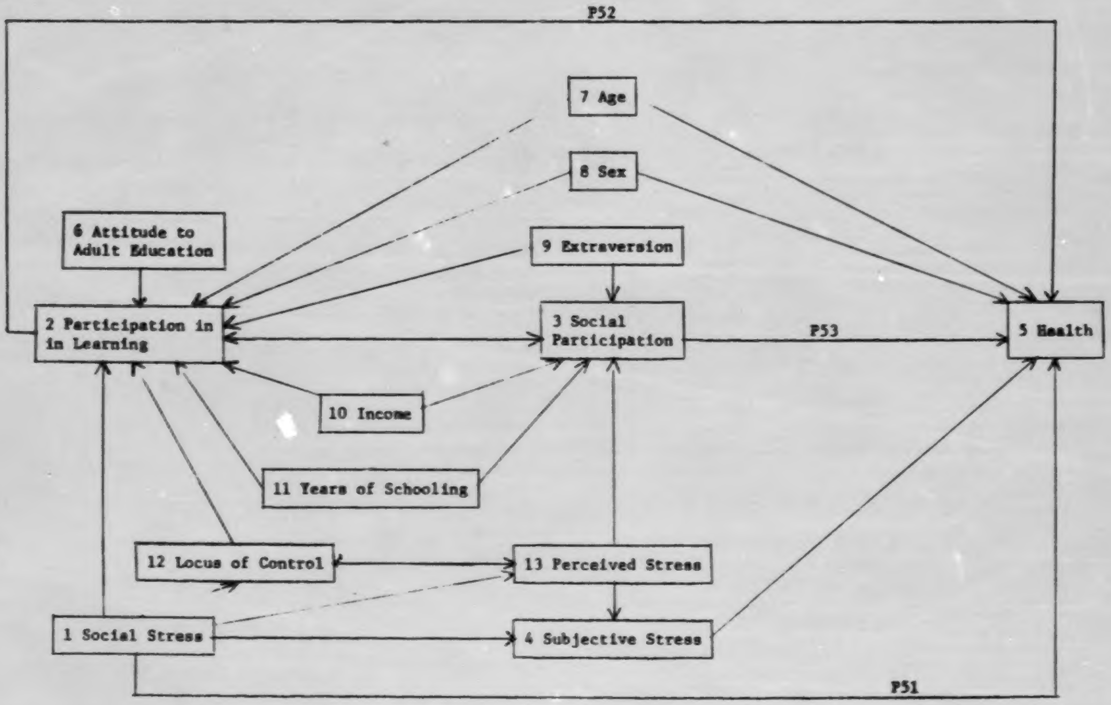
The purpose of this study was to explore the relationships among social stress, participation in learning activities and health, and to determine whether or not participation in learning activities is a coping strategy enabling those adults who are active learners to maintain their health after experiencing social stress.

THEORETICAL FRAMEWORK

Manageable models must be simple and exclude all but the most important variables (Blalock 1969). Early models of a complex system must therefore exclude many potentially valuable explanatory variables. Three major problems were encountered in the development of a model for this study. Firstly, there was little research to guide the selection of variables for inclusion in the model. The number of variables with potential explanatory power was large, and finally there were relatively few data collection instruments available to quantify the major variables of social stress, learning activity and health status.

FIGURE 1: THEORETICAL MODEL


P52
7 Age
8 Sex
6 Attitude to Adult Education
9 Extraversion
2 Participation in in Learning
3 Social Participation
P53
5 Health
10 Income
11 Years of Schooling
12 Locus of Control
13 Perceived Stress
1 Social Stress
4 Subjective Stress
P51

Six broad areas of literature were reviewed to identify variables for inclusion in the model; stress, social stress and health, perceived stress and health, social learning theory, personality and learning and socio-demographic variables associated with participation in adult education. From the review of the literature a theoretical model was developed to depict hypothesised causal relations between social stress, learning activity and health, and among the variables which were hypothesised to be causal antecedents of the major study variables. The model as tested is depicted with the proposed causal paths in Figure 1.

METHODOLOGY

Sample

The study used a randomly selected sample in a panel design with two data collection periods approximately nine months apart. The population consisted of all the patients over eighteen and under sixty-five years of age who had sought health care from a family physician in East Vancouver during the year preceding the study. Complete sets of study data were obtained from 226 of a total of 867 adult patients in the study population.

Data Collection Instruments

Multiple measures of health status and stress were gathered in order to validate the major instrument used to quantify each of these constructs. Similarly, variables known to be associated with adult education participation were included in the study to assist in the validation of the learning activity scale.[1] The instruments used to quantify the variables identified in the theoretical model are listed below:

1. Health Status - Bush Health Status Index (Patrick, Bush and Chen 1973)
2. Health Change - Bush Health Status Index Pre-Post Residuals
3. Social Stress - Subjective Readjustment Rating Scale (Holmes and Rahe 1967)
4. Participation in learning activities - Subjective Estimation of Adult Learning Scale (Blunt, 1977)
5. Subjective Stress - Subjective Stress Scale (Chapman *et al* 1966)
6. Perceived Stress - Neuroticism-Stability Scale, Eysenck Personality Inventory (Eysenck and Eysenck, 1968)
7. Locus of Control - Locus of Control Scale (Rotter, 1966)
8. Extraversion - Extraversion-Introversion Scale, Eysenck Personality Inventory (Eysenck and Eysenck, 1966)
9. Social Participation - Chapin Social Participation Scale (Chapin,1938)
10. Attitude to Adult Education - A Thurstone successive intervals scale developed for use in this study.

With the exception of the Bush Health Status Index and the Chapin Social Participation Scale each of the seven psycho-metric scales was analysed on the basis of the zero-one responses to assess their reliability. The Hoyt estimates of reliability ranged from .69 to .87 and the Cronbach Alpha coefficient for all seven scales combined was .79 indicating acceptable levels of internal consistency and reliability.

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[1] Additional information on all of the study variables and the scale validation procedures is available upon request. As this paper is concerned with the results of the research rather than the methodology and for the sake of brevity, the regression coefficients are not reported here.

Method of Data Analysis

Recognising that phenomena as complex as relations among health, social stress and participation in learning activity are better modelled as non-recursive systems with variable interdependence, feedback and reciprocal causation the two-stage least-squares method (Johnston, 1972) was used to analyse the data. Blalock (1971) recommends non-recursive methods when a) reciprocal causation can be anticipated, b) measures are relatively poor, and c) theories are highly tentative. As the name implies two-stage least-squares proceeds to a solution in two stages. First, each endogenous variable is regressed on all its exogenous variables and secondly each endogenous variable is regressed on those variables and the predicted endogenous variables assumed to effect it. At the first stage, a set of reduced form equations are solved separately by ordinary least squares regression analysis. Having solved the reduced form equations, ordinary least squares is applied to the estimation of structural parameters of the model by using for each endogenous variable the relevant exogenous and the predicted endogenous variables.

Data Preparation

The data were initially screened for outlier values and non-linearity through the visual inspection of scattergram plots. Several extreme values which could not be justified as valid cases were observed on several variables and the decision was made to remove those cases which fell outside the range of plus or minus two standard deviations from the mean. It was observed that while many of the coefficients were statistically significant, the correlations were low. Although no major deviations from linearity were immediately observable from the scattergram plots, frequency distributions and bivariate distributions of the data indicated slight non-linearity and bi-modal relationships among some of the variables. Consequently either log or polynomial transformations were applied to improve the linearity of the data. All observations were then converted to standard scores. A matrix of the zero order correlation coefficients both prior to and following transformation is presented in Table 1.

TABLE 1: ZERO ORDER CORRELATION COEFFICIENTS

	TRANSFORMED DATA COEFFICIENTS													
Original Coefficients	Learning	Extraversion	Neuroticism	Subjective Stress	Attitude to Adult Education	Locus of Control	Social Participation	Social Stress	Health Post Test	Health Change	Age	Sex	Years of Schooling	Income
Learning	1.00	.08	-.03	-.09	.57	-.31	-.38	.17	.17	.08	.05	-.26	.64	.43
Extraversion	.05	1.00	-.07	.19	.24	.28	.07	.19	-.03	-.06	-.32	-.24	-.08	.13
Neuroticism (Hi)	-.02	-.04	1.00	-.47	.09	.27	-.22	.64	-.27	-.08	-.24	.35	.11	-.25
Subjective Stress (Lo-Hi Stress)	-.03	.13▲	-.36*	1.00	-.02	-.31	-.08	-.53	.29	.09	.19	-.10	-.25	-.04
Attitude to Adult Education (Hi)	.15*	.15*	.06	-.00	1.00	-.40	.19	.27	-.13	-.13	-.12	-.17	.41	.27
Locus of Control (Hi)-Ext.	-.11▲	.13▲	.20*	-.13▲	-.22*	1.00	-.14	-.19	-.14	-.10	.19	.14	-.37	.14
Social Participation (Hi)	.10▲	.03	-.14▲	-.06	.12▲	-.06	1.00	-.18	-.17	-.21	-.03	-.29	.51	.58
Social Stress (Hi)	.10▲	.11▲	.30*	-.25*	.19*	-.11▲	.12▲	1.00	-.36	-.24	-.21	-.13	.32	.07
Health (Post-Test) (Hi)	.09	-.01	-.15*	.13▲	-.07	-.08	-.12	-.19*	1.00	.93	-.37	-.07	.21	.19
Health Change (Resids.)	.07	-.04	-.03	.05	-.08	-.06	-.14▲	-.13▲	.93*	1.00	-.39	.08	.19	.11
Age	.02	-.15	-.17*	.11▲	-.06	.10	.02	-.13▲	-.23*	-.15*	1.00	-.27	-.49	.31
Sex	-.13▲	-.07	.27*	-.06	-.07	.07	-.13▲	-.07	-.03	.04	-.16*	1.00	.03	-.64
Years Schooling	.30*	-.03	.03	-.17*	.25*	-.24*	.30*	.16*	.10▲	.11▲	-.29*	.01	1.00	.39
Income	.21*	.08	-.18*	.00	.10▲	.09	.33*	.04	.10▲	.06	.12▲	-.49*	.24*	1.00

* p < .01 ▲ p < .05

RESULTS

The endogenous variables health status (Bush Health Status Index Post-test) and health change (Bush Health Status Index Pre-post Residuals) were each specified as:

Health Status/Health Change = f (Participation in Learning Social Stress, Subjective Stress, Perceived Stress, Social Participation, Age, Sex).

The corresponding equations for those variables exogenous to health status and health change are:

1. Participation in Learning = f (Attitude to Adult Education, Age, Sex, Extraversion, Social Participation, Income, Years of Schooling, Locus of Control, Social Stress)
2. Subjective Stress = f (Social Stress, Perceived Stress)
3. Social Participation = f (Extraversion, Perceived Stress, Years of Schooling, Income, Participation in Learning)
4. Perceived Stress = f (Social Stress, Locus of Control).

Standardized partial regression coefficients indicating the direct influence or effect that one variable has upon another were computed for the three paths identified in the theoretical framework as P51; P52; and P53. Dealing firstly with health status (Bush post-test) it was observed that the effects of social stress on health with all other variables held constant were in the direction predicted (P51: -.36: RSQ=.23). An increase of one standard deviation in social stress was associated with a decrement in health status of .36 standard deviations when all other variables were held constant. The effects of social stress on health change (Bush pre-post residuals) was slightly less with a coefficient of 0.24.

An inverse relationship was found between social participation and health status (P53) with high social participation scores being associated with low levels of health status (-.13: RSQ = .11) and with decrements in health (-.16: RSQ = .09)

Participation in learning activities was found to exert a positive though relatively small effect upon health status (P52). An increase of one standard deviation in participation in learning activity scores was found to be capable of increasing future levels of health status by .17 standard deviations (RSQ=.16). The effect of learning activity on health change was much lower with a coefficient .08 indicating a positive though weak effect promoting increments in health status over time (RSQ=.05).

Overall the hypothesised relationships between the stress and health variables, and between the socio-demographic variables and participation in learning were all confirmed. No evidence was obtained to indicate that participation in learning activities was influenced by levels of subjective stress, extraversion, or locus of control. Four socio-demographic variables were found to influence participation in learning scores with numbers of years of schooling (P2,11: .61) being the single most powerful influence, followed by income (P2,10: .35), age P27: .25) and Sex (P28: .20). The path coefficient obtained between attitude to adult education and learning activity (P26: .18) was lower than anticipated possibly due to the strong effect of number of years of school completed.

CONCLUSIONS

Modest support has been demonstrated for the hypothesis that participation in adult learning activities promotes higher levels of future health and has a small effect on improvements in health change over relatively short periods of time.

The study findings are limited by the instruments used to quantify the constructs within the model and the exclusion from the model of competing predictors of health status. However, it is important to note that the results obtained are from a community based population and not a special population of patients or adults learners. This study identifies the need for future research with populations of active learners and non-active learners in stressful environments to identify the effects of learning activity in the formal and natural societal settings, and to determine whether participation in non-specific learning activities or the learning of specific knowledge and skills effect future levels of health status.

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Crisis in the Steel Industry: Effects of Mass Unemployment on Educational and Vocational Goals and Activities - Phase II

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INTRODUCTION AND LITERATURE REVIEW

The September, 1977 closing of Youngstown Sheet and Tube, (Cook, 1979:42-49; Howard, 1979; Smith, 1977) one of the nation's largest steel producers, resulted in the termination of approximately 5,000 workers. This is a study of the impact of prolonged mass unemployment on utilization of formal learning opportunities to prepare for other employment and the factors related to those efforts on the part of the workers.

It is generally agreed that retraining of unemployed workers is a sound investment and perhaps even an obligation for society. Gains in production, earnings and tax receipts, it is argued, are likely to outweigh costs. Training allowances constitute a small net addition to unemployment compensation and relief benefits (Mangum, 1965; Somers, 1968). Acting on these assumptions various training and retraining programs have been established by the federal government over the years in response to mass unemployment (Fishman and Fishman, 1969; Ross, 1967). Studies in Detroit (Foltman, 1968), Buffalo (Furman, 1969) and Omaha (Weber, 1968) however, indicate that no more than 6 percent of displaced workers availed themselves of training opportunities.

Sobel and Folk (1967) identify four options available to unemployed workers to increase the probability of finding a job. They can 1) change the type of work sought which often implies acceptance of retraining or additional training; 2) change the method of job search; 3) lower expectations of wages sought; and 4) change the geographic area of the job search which often implies commuting or relocating.

Bakke (Bakke et al., 1954) points up the complexities inherent in relocation in order to find new work. These same complexities would seem to apply to retraining as a viable path to new employment. He observes that institutional adjustments have been made to the costs of free mobility which alter the character of our problem. Union-management agreements have been made to the costs build fences around job territories and limit the people who may offer to do work in those territories. Seniority provisions in union contracts, pension plans, devices such as vacations, promotion schemes, and profit sharing, dependent on length of service, and other devices have increased the equity of particular workers in their present jobs and have consequently reduced the possibility of movement and the incentive to move.

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METHODOLOGY

Personal interviews were conducted with 282 steelworkers from the Youngstown Sheet and Tube Company, Youngstown, Ohio, during July and August 1978 in the first phase of the study. At this time, most workers had been laid off for six months or more; many had exhausted financial benefits. Data were also collected by administration of paper and pencil questionnaires at appropriate times during interviews. Steelworkers included in the study were drawn from a probability sample designed to represent all employees at Youngstown Sheet and Tube. Interviews were conducted in steelworkers' homes by a specially trained staff of the Center for Urban Studies, Youngstown State University and required approximately 150 minutes to complete. Approximately 700 different observations were collected for each respondent. Less than 15 percent of those contacted refused to participate.

Follow-up personal interviews were conducted in July and August, 1979 with 155 of the 282 steelworkers interviewed in phase I. At this time, Youngstown Sheet and Tube had been closed for two years. Unemployment compensation received by workers had been exhausted for about a year. No attempt was made to substitute respondents for those who could not be located or interviewed in the second phase of the study. Data were collected from respondents in the same manner above. Interviews were conducted by the same staff. Interviews took about 90 minutes to complete. Approximately 500 different observations were collected for each respondent.

Sample Characteristics

Phase I. Respondents in the sample were divided into several groups for purposes of analysis. Steelworkers were initially divided into workers who were permanently *terminated* (N=146) from employment at Youngstown Sheet and Tube and workers who remained *employed* at the steel mill (N=138). Workers in the terminated group were further divided into those who *retired* (N=36), those who were *rehired* in any other fulltime job (N=50), and those who remained *unemployed* (N=60).

An analysis of variance was conducted for the five subsamples above concerning five social characteristics: education, race, age, income, and marital status. Results showed that no significant differences were observed for race $[F(4,276)=.51, p>.05]$ and marital status $[F(4,276)=.60, p>.05]$. The subsamples were significantly different, however, with regard to education $[F(4,276)=3.96, p<.001]$ age $[F(4,276)=32.67, p<.001$ and income $[F(4,276)=5.96, p<.001]$.

Analysis revealed that the unemployed had a higher level of education, were much younger and earned less income than any other group. Employed workers--those who still work for Sheet and Tube--were demographically exactly opposite unemployed workers. They were less educated, older and had the highest income of any group. Those workers who were rehired--employed at other than Sheet and Tube--were similar to the employed workers with the exception of lower earnings. Differences between the steelworker subsamples enhanced our confidence that if the steel crisis affected different groups in various ways during the crisis, then those subsamples would reveal these effects.

Phase II. Data from some 155 respondents in the four subsamples: unemployed, retired, rehired, and employed were reinterviewed in phase II. Analysis attempted to discover how a worker's employment status had changed over the past year. Results of this analysis are presented in Table 1.

Table 1

Worker Employment Status During Phase I
(Summer, 1978) and Phase II (Summer, 1979)

Employment Status: Phase II	Employment Status: Phase I				
	Unemployed	Retired	Rehired[b]	Employed[c]	Total
Unemployed	3.2%[a]	0.0%	1.9%	3.9%	9.0%
Retired	3.2%	5.2%	0.6%	2.6%	11.6%
Rehired	7.7%	0.6%	3.9%	7.1%	19.4%
Employed	16.8%	6.5%	12.9%	23.9%	60.0%
Total	31.0%	12.3%	19.4%	37.4%	100.0% 155

[a] Percentages based upon total sample; [b] Rehired other than at Sheet and Tube; [c] Currently employed at Sheet and Tube.

Results in Table 1 show a great variety of movement in employment status from the first to the second phase. Of the 155 interviewed in phase II, about 9% were unemployed (N=14). In our sample, only 3.2 percent of the workers were continuously unemployed since the mill closing did not have as great an affect on unemployment rates as would have been expected (Bagshaw and Schnorbus, 1980). Even though many workers were initially laid off during the closing, many were called back by Sheet and Tube at least once. Most were called back to assist others in closing down the works. Results show that about 60 percent (N=93) of the workers in the sample gave up a job in order to be rehired temporarily at Sheet and Tube. Only about 19.4 percent (N=30) of the sample were rehired in jobs not at Sheet and Tube. This group was primarily made up of the unemployed (N=12) and those who were not initially laid off at Sheet and Tube (N=11). A rather large group of workers chose to retire (11.6%, N=18). The composition of this group may continue to change as more and more retirement applications are processed by the company. In addition, some workers must wait several more months in order to qualify for special retirement plans.

The 155 respondents in phase II were assigned to groups based upon their current employment status: unemployed (N=18), retired (N=13), rehired (N=29), and employed (N=89). An analysis of variance was conducted using five social characteristics as above. Results showed again that no significant differences were observed for race [$F(3,141)=2.29$, $p > .05$ and marital status [$F(3,141)=2.00$ $p > .05$] . Unlike phase I, age [$F(3, 42)=.46$, $p > .05$] was not significantly different. The subsamples were significantly different, however, with regard to education [$F(3,140)=7.97$, $p < .001$] and income [$F(3,142=5.08$, $p < .002$]. Analysis revealed that the unemployed were most educated, followed in turn by the employed, rehired and retired.

FINDINGS

Seeking Additional Education

Our expectation was that laid-off steelworkers would be likely to seek educational programs or courses associated with non-steel related skills in order to make themselves more employable in the regional economy. This would be more true of unemployed and rehired workers, than of retired or continuously employed workers. Further, the longer a worker remained unemployed, the more likely he would be to seek additional education.

Table 2

Mean Scores for Enrollment in Educational Courses or Programs by Employment Status for Phase I and Phase II*

Phase I			Phase II		
Employment	$\bar{x}$	N	Employment	$\bar{x}$	N
Unemployed	1.81	37	Unemployed	1.89	18
Retired	1.90	21	Retired	1.92	13
Rehired	1.94	31	Rehired	1.76	29
Employed	1.88	59	Employed	1.91	89
TOTAL	1.88	148	TOTAL	1.88	148
F(3,144)=.88, p=.45			F(3,144)=1.69, p=.17		

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*First and second phase data are composed of workers who responded on both phases. The question posed was: "Have you enrolled in any educational courses or programs since the Shutdown of Youngstown Sheet and Tube?" (coded 1=yes, 2=no). If workers responded "yes", then they were asked: "In which courses did you enroll?" and "What was your most important reason for enrolling?"

An analysis of variance was conducted on phases I and II data to test the hypotheses above. From Table 2 it can be seen that additional education was not considered by any group to any great extent in either the first or second phase of the study. In addition, the four groups in the analysis were not significantly different, suggesting that the steel mill closings did not affect any one group more than another. Change in employment status from the first to the second phase (as referenced above) also yielded no significant differences [F(75,139)=1.009, p=.45]. This finding was consistent with many other findings concerned with plant shutdowns (e.g., Foltman, 1968: 116).

The absence of interest in education or retraining can be explained by at least three reasons. First, laid-off workers were able to find jobs elsewhere, especially in the automobile industry, construction trades and transportation (Bagshaw and Schnorbus, 1980). Although these jobs were not as lucrative as steelmaking, they did yield sufficient income so that additional education was not viewed as a desirable option. Second, for almost two years after the mill closing, various groups inside and outside the community attempted to either keep the mills from closing or to reopen the mills under a worker or community ownership plan (See "Still Crusading in Youngstown," 1978). This may have caused many workers to postpone seeking retraining pending the results of these activities. Third, many workers feel that steelmaking is not only a job, but a way of life. They simply do not want to learn any other skill which does not involve steelmaking (Buss and Johnson, forthcoming).

Educational opportunities sought. Even though most workers did not seek additional education, those who did, did so in interesting ways. Enrollments were similar in both phases of the study. In phase I, 39.5 percent (N=32) opted for college level courses or programs, 53.1 percent (N=43) enrolled in vocational-technical training and the remainder (7.4 percent, N=6) enrolled in personal enrichment courses. In phase II, the retired, rehired and employed all reported that they were enrolling either to improve existing job skills possessed or to retrain themselves in job skills supplemental to those already possessed (N=12). The unemployed reported that they were enrolling to gain more unemployment benefits (N=1) or to fulfill a personal need for enrichment or enjoyment (N=12).

Even though many workers sought no further education, it is important to understand the conditions or factors which were associated with either seeking or failing to seek retraining.

Encouragement to Enroll

Workers may be more likely to enroll if they are encouraged by others. Encouragement might originate from family, friends, co-workers, union leaders or others. Our expectation would be that encouragement to enroll would transcend employment status, that is, workers in all four groups under study would be more likely to enroll if encouraged.

Workers were asked: "Did anyone encourage you to enroll in any educational courses or programs?" and "If yes, who encouraged you?" Only 25 percent (N=36) reported receiving any encouragement to enroll. Results showed that those who were most likely to have encouraged a worker to enroll were agencies or programs which deal with employment. Of those workers who reported encouragement, 10 were encouraged by the Ohio State Bureau of Employment Services and 9 were encouraged by TRA (Trade Readjustment Allowance) representatives. The union (N=2), Sheet and Tube management (N=2), and community agencies (N=2) were not important sources of encouragement. Other sources included co-workers (N=1), spouses (N=2), in-laws (N=3), and friends (N=5). These sources were randomly distributed across employment status so that employment effects due to the crises were not apparent.

Results suggested that the most efficacious sources of encouragement tended to be those which were directly related to opportunities for retraining. This is parallel to Weber's (1968) studies in which training linked to specific employment opportunities was most desirable. Other sources which included friends, relatives and co-workers might not be quite as important for workers.

An analysis of variance concerning enrollment, encouragement and employment revealed that the hypothesis was confirmed $[F(1,142)=4.21,\ p<.04]$. Those who were encouraged to enroll, regardless of group (unemployed $\bar{x}=1.67$, retired $\bar{x}=1.75$, rehired $\bar{x}=1.73$, and employed $\bar{x}=1.89$) were much more likely to have enrolled than those who were not encouraged (unemployed $\bar{x}=2.00$, retired $\bar{x}=2.00$, rehired $\bar{x}=1.78$, employed $\bar{x}=1.93$). This was the case, regardless of the employment status of the workers. It would seem that organizations interested in stimulating worker participation in educational courses or programs must do so based on aggressive outreach or proactive activities which can be supported by accurate information.

Following Through with Enrollment Plans

Workers who report plans to enroll in educational programs may not follow through. Those interviewed in phase I were asked if they planned to enroll in any courses or programs. Reports of enrollment in the second phase were then compared with first phase enrollment plans to determine to what extent workers followed through. Results showed that those who planned to enroll were much more likely to have enrolled than those who did not plan to enroll $[F(1,144)=17.26,\ p<.001]$. Specifically those reporting they would enroll did so regardless of employment status (unemployed $\bar{x}=1.00$, retired-no cases, rehired $\bar{x}=1.25$, employed $\bar{x}=1.36$); while those not planning to enroll did not regardless of employment status (unemployed $\bar{x}=1.94$, retired $\bar{x}=1.92$, rehired $\bar{x}=1.84$, employed $\bar{x}=1.96$).

CONCLUSIONS

Mass unemployment seems to be qualitatively different than the sum of many unemployed individuals. Culture, tradition, and local conditions seem to play an important role in decisions made by those affected. Workers rehired but in lesser paying positions would seem to offer the most promise for retraining programs. The dissatisfaction experienced with the new situation becomes an incentive to try and improve one's options. Efforts made before termination of employment to encourage workers to seek out training opportunities may be more effective than at any other time.

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Socio-Psychological Correlates of Motivational Orientation: A Multi-Variate Analysis

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INTRODUCTION

The elimination of barriers that inhibit and the creation of circumstances that enhance participation in adult education is central to lifelong education. The notion of lifelong education has developed considerably during the past decade (see Kallen, 1979) but the desire to facilitate participation has been a traditional concern of adult educators. Demands for "participatory learning" are now even a preoccupation of the Club of Rome which links it with ecological stability and survival of the biosphere (Botkin, et al., 1979). Unfortunately, the desire to facilitate participation is often frustrated by an absence of tested knowledge. The need for tested knowledge concerning participation, motivation and allied phenomena, stem from the fact adult educators try to plan programs and design instructional environments congruent with the needs of participants.

Motivational orientations can be regarded as independent variables that influence the behaviour of adults in educational environments or, as is more often the case, dependent variables, or consequents, that stem from the social, demographic and environmental circumstances of adult education participants. Motivational orientations, as measured by the EPS (Boshier, 1977) are not "motives," in the psychological sense, but merely clusters of reasons for participation. The motivational, psychological or environmental forces that impel or evoke the orientations have yet to be fully investigated.

In one of the investigations flowing from Houle's (1961) contribution, Boshier (1971), created an Education Participation Scale containing items based on Houle's analysis and interviews with adult education participants. Interpretation of factors derived from a first and higher order factor analysis suggested that some factors stemmed from the presence of unsatisfied "deficiency" needs as previously described by Maslow (1954). It appeared that motives for participation were significantly associated with underlying psychological states that impelled people into adult education. As noted (e.g. Boshier, 1973; 1977; 1979), these internal states probably stem from and interact with external environmental factors.

The logistical problems associated with gathering psychological information from participants are more acute than those associated with eliciting social and demographic data. For this and other reasons researchers using the EPS after 1971 did not actively pursue hypothesized psychological correlates of motivational orientations. Boshier (1973) said the presence of deficiency/growth needs was associated with various states of psychological congruence/incongruence, critically appraised methodologies employed during motivational orientation research (Boshier, 1976) and in 1977 "revisited" the problem by testing relationships between EPS factor scores and variables such as age, previous participation in adult education, occupational status, income and suchlike (Boshier, 1977). Although the 1977 study flowed from previous distinctions between deficiency and growth, no psychological variables were measured. Similarly, Morstain & Smart (1974) administered the EPS to 611 participants at a U.S. college and calculated mean EPS factor scores for various age-sex groups. These groups exhibited a noticeable variation particularly when stepwise discriminant analysis was used to predict EPS scores (as dependent variables). Many writers have used the EPS since then (e.g. Boshier & Riddell, 1978; Boshier & Baker, 1979; Blakley, 1979; Denney, 1978) but few have concerned themselves with the psychological antecedents of motivational orientations. In the meantime, some writers wrongly described the orientations as "motives," which they are not.

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The situation was ameliorated when Haag (1976) correlated EPS factor scores with measures of self-actualization and neuroticism. A problem associated with Maslow's (1954) need hierarchy is the fact its author never provided researchers with an instrument or guidance concerning operational procedures needed to test its validity or "truthfulness." Shostrom (1963) and others tried to remedy the situation but, even now, the incomplete nature of Maslow's model permits researchers a fair amount of operational license. Haag (1976) decided that of the available psychological measures, Eysenck & Eysenck's (1968) Personality Inventory and Shostrom's (1963) Personal Orientation Inventory were among the most reliable, valid and theoretically defensible instruments which measured variables approximating Maslow's descriptions of deficiency and growth motivated behaviour. Haag's factoring of the EPS resulted in a six-factor solution after orthogonal rotation; of the six factors, four were significantly correlated with one or both of the psychological measures employed. While the psychological components of the Job Competence and Social Contact factors remained elusive, the study confirmed that at least four factors had psychological correlates related to Maslow's model.

Bosher's (1971) study, supplemented by the work of Haag (1976), Blakley (1979) and others, suggested that at least some of the EPS factors are pervaded by psychological variance. Coupled with a desire to proceed from an inductive rather than a deductive posture this led to a search for a personality theory and associated instrumentation which would be sufficiently comprehensive to reveal a broad range of relationships between psychological and motivational orientation variables. This led to a decision to adopt Cattell's trait theory and the 16 PF (Sixteen Personality Factors) as the conceptual and operational tools for the present study which was designed to examine interactions between social and psychological variables that predict variance on EPS factor scores - Escape/Stimulation, Professional Advancement, Social Contact, Social Welfare, Cognitive Interest and External Expectations. Although the 16 PF measures a range of variables larger than those encompassed by notions of deficiency and growth several of the sixteen personality factors can be discussed within the context of Maslow's work.

METHOD

Subjects were 367 participants (285 women; 82 men) enrolled in adult education programs organized by the Vancouver Vocational Institute (V.V.I.), the University of British Columbia and the Vancouver School Board. Their mean age was 44.62 years (S.D. = 20.48 years). Data collection extended over a three week period. During the time allotted, the writer or a trained proctor visited designated classes and administered three questionnaires; an instrument eliciting information concerning sex, marital status, previous adult education participation behaviour, educational qualifications, years of formal part and full-time education, involvement with organizations, occupation, personal and family income; the Education Participation Scale (Boshier, 1977) and Cattell et al.'s (1963) 16 PF. The current form of the EPS has 40 items cast on a four-point Likert scale (no influence to much influence). Form A of the 16 PF contains 187 questions. From the outset it was realized that most respondents would need an hour or more to complete the three instruments. In most instances questionnaires were completed in class but some were returned by mail using stamped-addressed envelopes given to latecomers and people who did not finish the task in the allotted time.

RESULTS

Course Nature and Location

The 367 respondents were enrolled in credit and non-credit courses sponsored by three Vancouver (B.C.) adult education agencies. Of the 367 respondents, 140 (38.1 percent) were in vocationally-oriented credit courses at the Vancouver Vocational Institute; 114 (31.1 percent) were in a UBC non-credit summer course for retired citizens; 58 (15.8 percent) were in an educational travel course (culminating in a trip to New Zealand) or a two-day instructor training course (both non-credit); 28 (7.6 percent) were in a university summer adult education degree credit course; the remaining 27 were enrolled in high school courses for adults at John Oliver School, Vancouver.

Characteristics of Respondents

Of the 367 respondents, 77.7 percent were women and 22.3 percent men. Most (59.7 percent) were married; 40.3 percent were single. They had an average of 1.74 children (S.D. = 1.92). Nearly two-thirds (62.4 percent) of the participants were born outside Canada; the remainder (37.6 percent) were born in Canada. This result stemmed from the large number of immigrant participants in V.V.I. programs. Of the 367 participants, 80.9 percent were taking only one adult education course at the time of the survey; the remainder (19.1 percent) were taking two or more courses concurrently. The 367 participants said they participated in an average of 2.78 (S.D. = 2.82) organizations and clubs in an average month; 28 percent had a university degree. Participants reported an average of 11.47 (S.D. = .94) years of formal schooling; 1.62 years (S.D. = 2.06) of full-time post-secondary education; .79 (S.D. = 1.69 years) of part-time post-secondary education. Of the 367 participants, 170 (46.3 percent) said they were unemployed; 197 (53.7 percent) said they were employed. The mean Blishen (1967) score was 50.12 (S.D. = 13.10). The mean personal income reported was $C11,000 (S.D. = 7.19/1000).

PREDICTING EPS FACTOR SCORES

Six EPS factor scores were calculated by summing over items whose factorial composition had been identified in previous EPS studies. The study employed the standard EPS scoring key which classifies the 40 items into six factors. Coding no influence as 1, little influence as 2, moderate influence as 3 and much interest as 4 yielded mean factor scores as follows: Professional Advancement = 20.28 (S.D. = 8.06); Social Welfare = 16.77 (S.D. = 6.37); Escape/Stimulation = 15.98 (S.D. = 5.64); Cognitive Interest = 12.03 (S.D. = 3.34); Social Contact = 8.79 (S.D. = 3.63); External Expectations = 6.07 (S.D. = 2.59).

The 16 PF was scored according to criteria provided by Cattell et al. (1963). The resultant sixteen factor scores were then placed in a file with the socio-demographic and EPS data. Six separate regression equations were then run; for each equation one EPS factor score was the dependent variable, all available 16 PF and socio-demographic variables were independent. For an independent variable to enter an equation it had to explain about an additional one percent of the variance in the relevant EPS factor score. No constraints were placed on the type of variable entered; all available personality and socio-demographic variables were eligible. These procedures produced equations accounting for 50 percent of the variance in Professional Advancement factor scores, 30 percent of the variance in Cognitive Interest scores, 26 percent of the variance in Social Welfare scores, 21 percent of the variance in Escape/Stimulation scores, 19 percent of the variance in Social Contact scores and 17 percent of the variance in External Expectations scores. Space requirements* preclude presentation of regression summary tables and means discussion will largely be confined to analysis of psychological (i.e. 16 PF) correlates of motivational orientations.

Professional Advancement

Professional Advancement was explained by age (multiple r = .65), previous participation in technical vocational courses, country of birth, and previous participation in business/commerce courses (multiple r = .71). None of the 16 PF variables explained variance in Professional Advancement scores. Past behaviour is a potent determinant of present and future behaviour; thus to discover that participants are largely continuing past behaviour is not of great theoretical interest. More significant is that age accounted for all but eight percent of the explained variance in Professional Advancement scores. This result strongly supports earlier findings by Johnstone & Rivera (1965) and Boshier (1977) which show that young people are more likely to be enrolled for Professional Advancement than older participants.

Cognitive Interest

The Cognitive Interest factor approximates the learning orientation described by Houle (1961). Participants enrolled for Cognitive Interest have previously been characterized as growth or life-space motivated (Boshier, 1973; 1977) and, according to Haag (1976) are significantly more self-actualized than persons not enrolled for this orientation. Three "previous participation" and three 16 PF personality variables entered the equation, along with variables such as age, occupation, country of birth and years of schooling. Previous studies (e.g. Boshier, 1977) suggested that older adults are more inclined to enrol for Cognitive Interest reasons than are younger adults. That result was confirmed in the present study; age was the single most powerful predictor of Cognitive Interest. But examination of beta weights shows that Cattell's Factor I (Tough minded ... Tenderminded) had approximately the same effect on Cognitive Interest as did the next five variables which entered the equation. Note that the combination of variables shown in Table 1 accounted for 30 percent of the variance. Having regard to beta weight signs it appears that psychologically, the typical person enrolled for Cognitive Interest was tender-minded, slightly venturesome, and self-sufficient (temperamentally independent, accustomed to going own way). The explained variance in Cognitive Interest was accounted for by an interaction of these personality and other variables which more closely approximate Maslow's description of growth than deficiency-oriented psychological states. It thus appears that the previous characterizations of Cognitive Interest as stemming from growth (or life-space) needs (Boshier, 1973; 1977) receive a modicum of support. Although only small amounts of variance are accounted for by psychological factors, their contributions are statistically significant and in the direction hypothesized by earlier work.

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*The regression summary tables were distributed to participants attending Boshier's session at A.E.R.C. Readers purchasing these proceedings after the conference may obtain the tables from the author.

Escape/Stimulation

Boshier (1971) said people enrolled for Escape/Stimulation are motivated by a desire to satisfy deficiency needs; Boshier & Riddell (1978) showed that older adults enrolled for this orientation were significantly more dissatisfied with their lives, less adjusted to the developmental tasks of later life and less likely to be "social participators" than persons not motivated by Escape/Stimulation. Haag (1976) showed that Escape/Stimulation motivated participants were more neurotic and less self-actualized than low scorers on the factor. Table 2 shows that four of the 16 PF variables entered the Escape/Stimulation regression equation. Having regard to the direction of scoring for 16 PF variables and the sign on the beta weights, the psychological variables operated as follows: high scorers on the Escape/Stimulation factor were more emotionally unstable, suspicious, experimenting, and humble (dependent, confessing, anxious for obsessional correctness, possessing a passivity found in many neurotic syndromes) than were low scorers. Although much variance in Escape/Stimulation factor scores remains unexplained, its psychological components are clearly more characteristic of a deficiency than a growth orientation. The present findings appear to reinforce those derived from earlier studies.

Social Contact

The Social Contact regression equation reached a multiple r of .44 and included five of the sixteen factors in Cattell's scale. The psychological factors operated as follows: high Social Contact scorers were more outgoing (good-natured, easy-going) than low scorers, more emotionally unstable, relaxed (sedate, composed) happy-go-lucky (cheerful, active) and placid (mature, confident, resilient). The influence of Factor C, which accounted for three percent of the variance, is the only exception to what appears to be an absence of neurotic or "deficiency"-oriented psychological components in this factor. It appears that, with the population studied here, people enrolled for Social Contact were impelled by a desire to satisfy growth rather than deficiency needs.

Social Welfare

In Boshier's (1971) study, enrolling for Social Welfare reasons was assumed to stem from growth needs; in Haag's (1976) study, high scorers were significantly more self-actualized and less neurotic than low scorers; in Boshier & Riddell's (1978) study high scorers reported significantly higher levels of social participation and better adjustment to the "developmental tasks of later life" than low scorers. Enrolling for Social Welfare reasons thus appeared to stem from a life-space orientation. The present study and correlations produced by Blakley (1979) suggest such a conclusion may be premature. In the Blakley study, high Social Welfare scorers were more neurotic ($r = .24$, $p < .01$) and self-directed ($r = .20$, $p < .05$) than low scorers; in the present investigation the four 16 PF variables operated so high Social Welfare scorers were significantly more outgoing, emotionally unstable, relaxed and group dependent than were low scorers. The image evoked is one of neurotic extroversion. Just over a quarter of the variance in Social Welfare scores was explained by the variables shown in Table 3. The apparent lack of congruence between these and the earlier results (e.g. Boshier, 1971;

Boshier & Riddell, 1978; Blakley, 1979) probably stems from the nature of the population in the present and previous studies. More than two-thirds of the respondents in this study were immigrants to Canada; more than a third of them were enrolled in a vocational institute. In contrast, Boshier's (1971) study was conducted in another culture (New Zealand) with people enrolled in non-credit programs emphasizing liberal studies. Nevertheless it should be noted that two of the largest beta weights in the present Social Welfare regression equation were attached to Cattell's Factor A (beta = .19) and Factor C (beta = -.20).

External Expectations

Persons enrolled for External Expectations have been advised to take adult education courses by an "authority" such as a friend, priest, employer, social worker or spouse. In Haag's (1976) study, high scorers were significantly more neurotic than low scorers; in Blakley's (1979) investigation, External Expectations scores were only slightly related to the psychological measures employed. In the present study the most powerful thirteen variables achieved a multiple r of .42. Five of the 16 PF variables entered the equation. High scorers were more practical (in contrast to imaginative), group dependent (in contrast to self-sufficient), dull (in contrast to intelligent), undisciplined (in contrast to controlled) and conservative (in contrast to experimenting). Factor M (Practical ... Imaginative) accounted for the greatest amount of variance in External Expectations scores; although none of the personality factors accounted for large amounts of variance all the beta weights were in the anticipated direction. In this study people enrolled for External Expectations were clearly more deficiency than growth motivated.

CONCLUSION

While the psychological correlates of the Social Welfare factor are still elusive those buttressing the other EPS factors were generally in the direction suggested by earlier research. The most parsimonious equation explained 50 percent of the variance in Professional Advancement; the most complicated and least powerful equation accounted for 17 percent of the variance in External Expectations scores. Unexplained variance probably resides in variables relating to the "press" of environmental circumstances (Boshier, 1979; Murray, 1938; Bandura, 1978) and person/environment interactions which influence participation behaviour. Future research should focus on these person/environment interactions but, in the meantime, this study has shed considerable light on the construct validity of the EPS factor scores. In future analyses of this and other similar data it would be desireable to remove redundant independent variables (such as previous participation) that possess predictive power but are of limited theoretical interest.

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Participative Education Programming: Mobilizing Human Resources for Development

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INTRODUCTION

Knowledge of principles and procedures for increasing and improving learner participation in the design and implementation of non-formal, development oriented education is grossly inadequate in light of new emphasis being placed on the expansion of development programming to encompass larger numbers of people and resources. This fact, combined with a growing recognition of the positive effects of learner-determined and learner-directed education on personal, social, and economic development, underscores the need for research designed to delineate the relevant principles and conceptual base of "participative education programming" (PEP).

The research reported here was conducted in Sri Lanka through collaboration with the Sarvodaya Shramadana Movement (see AERC proceedings for 1979 for a report on the research approach used, as described in Carol J. Compton, "Field Methods for an Inductive Approach").

This research was designed as the first of a three-stage research effort with this initial phase being exploratory and descriptive in nature. The second phase will be of an action research nature and designed to test the hypotheses and conceptual base resulting from this initial phase. It will be conducted in Sri Lanka. The third stage will focus on dissemination and further testing of hypotheses through a series of well coordinated experiments in other cultural settings in collaboration with theoretician-practitioner teams from several Asian countries.

PARTICIPATIVE EDUCATION PROGRAMMING: A CONCEPT

Participation, viewed in an educational context, yields a postulate that people learn best (learning being seen in terms of knowledge and skill acquisition or attitudinal and behavioral change) when extending themselves in pursuit of objectives chosen by them. Participation with others in learning groups to define objectives and carry-out learning activities is generally regarded as an effective means to facilitate certain kinds of individual learning. Participative education programming is yet, however, a little understood phenomenon.

Educational psychologists have only recently begun to seriously study the self-actualizing behavior of people in non-formal educational contexts. After the pioneering work of Maslow (1970), little attention was given to this area of concern until Tough's (1971) study of the individual adult's learning projects. More recently, Amaratunga (1977) has conducted related research in Ghana and Sri Lanka. Freire (1971) also has obviously contributed to this new humanistic pedagogy and Hoxeng's (1975) efforts in Ecuador have provided additional evidence of the capability of less formally educated adults to actually manage much of their own learning. These studies plus others conducted in a variety of cultural settings provide useful insights into "participative education programming." But two large questions remain and call for continued explorations: how can and does popular participation in education programming come about and how does it sustain itself? This research was precursory in nature and aimed at the identification of a conceptual and operational base from which more long-term and comprehensive programmatic research into these questions can be conducted.

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METHODOLOGY: SOME ADDITIONAL NOTES

A multi-dimensional purposive sample encompassed the factors of ethnicity, religion, geographic zone (including both climatic and topographical considerations), and participation ratings. The following illustrates the distribution:

Ethnicity	Religion	Zone: Climate	Zone: Topography	Participation Rate	Village	District
Tamil	Hindu	Dry	Coastal	High	Punkuduthivu	Jaffna
Tamil	Muslim	Dry	Coastal	Low	Tevanpity	Mannar
Sinhalese	Buddhist	Dry	Inland	High	Kumbukgollawa	Anuradhapura
Sinhalese	Buddhist	Dry	Coastal	High	Kivulekele	Puttalam
Sinhalese	Buddhist	Wet	Upland	High	Dolapihilla	Kandy
Sinhalese	Buddhist	Wet	Upland	High	Pitawela	Kegalle
Sinhalese	Buddhist	Wet	Lowland	High	Tunnana	Colombo
Sinhalese	Buddhist	Wet	Coastal	Low	Kabillewela	Badulla
Sinhalese	Buddhist	Dry	Coastal	Low	Dehigahalanda	Hambantota

Sample Villages

			Number of Respondents		
Village	District	Village Leader	Sarvodaya Worker	Villager	Total
Punkudutivu	Jaffna	4	2	5	11
Tevanpity	Mannar	2	-	4	6
Kumbukgollawa	Anuradhapura	2	3	5	10
Kivulekele	Puttalam	2	4	7	13
Dolapihilla	Kandy	3	6	5	14
Pitawela	Kegalle	2	3	9	14
Tunnana	Colombo	2	6	8	16
Kabillewela	Badulla	2	4	8	14
Dehigahalanda	Hambantota	1	4	6	11
	TOTAL	20	32	57	109

Because of the requirements of flexibility and open-endedness in data collection procedures in inductive research, a thematic "interview schedule" was constructed. Each theme called for the use of a series of lead questions and optional probes. The themes are as follows:

1. Existing traditional (culture-rooted) participation patterns in the village context.
2. Existing procedures by which villagers (and self-perceived capacity of villagers to) participate meaningfully in identifying individual learning and community development needs.
3. Origin and actual extent of participation in various learning and development projects.
4. Characteristics differentiating participants from non-participants and degree of participation among participants in a development effort.
5. Social, economic, and political factors either encouraging or hindering participation in various projects.
6. Nature of participation in projects: determining projects, evolving methods of working or learning, and deciding upon and playing instructional or action roles in project implementation.
7. Benefits derived from participation in determining projects, in evolving methods of working or learning, and in deciding upon and playing instructional or action roles in project implementation.
8. Characteristics and activities of facilitators in encouraging villager participation in projects.
9. Nature and duration of relationship between facilitators and the villagers.
10. Nature of participation in the sanctioning and legitimizing of various projects.
11. Functional outcomes of learning and development projects; changes in participants felt to be a direct result of participation.

SUMMARY OF THEMATIC INQUIRIES

Because of space limitations no effort will be made here to list the concepts, principles, and hypotheses resulting from this research. Instead, a summary statement regarding the results of each thematic inquiry is provided.

1. The interplay between old and new and the subsequent adaptations and accommodations made by people in order to protect, discard, or adopt particular objects or forms of behavior requires us to understand not only the traditional roots of a people but also the impinging effects of influences external to local culture.
2. People as a whole in the type of communal society studied seem to have a fairly clear view and acceptance of behavioral expectations for self and others. Traditional community structures and channels are frequently used in times of stress but a more general tendency is to first rely upon personal powers or those of intimates.
3. Self-motivation, the influence of others, a concern for the community, and positive views of outside helping agencies serve as reasons for people participating in community education/develop-

ment activities. A pride of independence among people fosters a rejection of social pressure from elites to conform, join, or belong. People get involved in and contribute to community projects largely because of their sense of ownership of those activities.

4. There are significant contrasts between youth and older adults, people with an average income versus the wealthier and poorer groups, and the well-educated, average educated, and uneducated. A project stressing both tangible and intangible results seems to satisfy the desires of both older adults and youth. The energy, enthusiasm, and idealism of youth can serve to launch initial activities in a community, although often with the initial support of a few key adult figures. The general adult population, to the extent that they can see concrete results, then will join in and support subsequent activity. The comparatively rich, the very poor, the old, the self-sufficient, the lazy, the well-educated and uneducated frequently do not participate.
5. Religious and economic factors are often important in encouraging paritcipation. Other than the struggle of earning a living, no other factors seem to be universally significant in discouraging participation.
6. Successful community-based projects are often at one and the same time a product of the energy and talents of the local population and the inspiration of an external source. The general population, leaders, and outsiders all frequently play vital roles in these activities. People supply energy, special skills, and material resources. Leaders provide instruction, advice, and supervision. Outsiders provide inspiration and advice on organizational strategies.
7. (Not reported here.)
8. Effective facilitators are relatively similar to the people with whom they work, especially in relation to religion, age, civil status, employment, residence, land owned, and (perhaps) education. They have cultural traits (values and beliefs) similar to those of the people. They use their positions unselfishly.
9. The relationship of people and change agent flows out of concrete actions by the change agent, actions which may be integral to a development philosophy, but actions which may also lead to a "natural" dependency relationship. That dependency comes from the normal process of development projects: a need is raised in a community, the need is met, and the meeting of the need raises the expectations of the people, who then rely upon change agents for further help. Dependency relationships in successful and sustaining learning and development projects are easier to create than to break.
10. (Not reported here.)
11. The medium of collective action socializes participants while assuring a critical mass of energy and resources to tackle the problems at hand. Whether or not projects pay an economic dividend often becomes a final yardstick for the measurement of the continuing motivation of impoverished people to participate in learning and development activity.

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A Framework for the Analysis of the Current Extra-Institutional Adult Education Practices in Quebec

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INTRODUCTION

Extra-Institutional Adult Education practices - also referred to as Popular Education - constitute an innovative, dynamic and diversified field of Education in our society. This informal Education stems from the very initiative of the adult citizens and includes a great variety of activities, ranging from intellectual or cultural activities to political or social development activities.

As we carried out an extensive study of the main practical and theoretical aspects of this subject, we came to notice the coexistence of very different - often antagonistic - orientations and practices. It seemed no satisfactory understanding or interpretation of such a heterogeneous field could be achieved without our referring to a theoretical framework that would encompass the entire subject. The purpose of this research, therefore, has been to elaborate and propose such a framework.

BASIC HYPOTHESIS

The basic hypothesis upon which our framework is built states that it is the educational agent's ideological interpretation of social reality that determines this agent's whole subsequent educational intervention: the educational agent's ideological option that is the agent's explicit or implicit perception, definition of society - will directly have an effect upon his educational orientation and practice.

ELABORATION OF OUR THEORETICAL FRAMEWORK

In order to elaborate a theoretical framework based upon this hypothesis, we first had to make an extensive review of the literature dealing with Popular Education as such but also dealing with Adult Education, Sociology, and Community Development in general, making sure to bring out, in a general synthesis, all the elements that were relevant to our understanding of Extra-Institutional Adult Education.

We then referred ourselves, as the basis for our own framework, to French sociologist Alain Touraine's four main sociological orientations or possible interpretations of societal reality.

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From these four societal interpretations, we then elaborated our own framework which consists of five distinct educational models or types of intervention: -Our first model (M-1) which corresponds to Touraine's first sociological orientation based on social Functions, emphasizes systematic teaching.

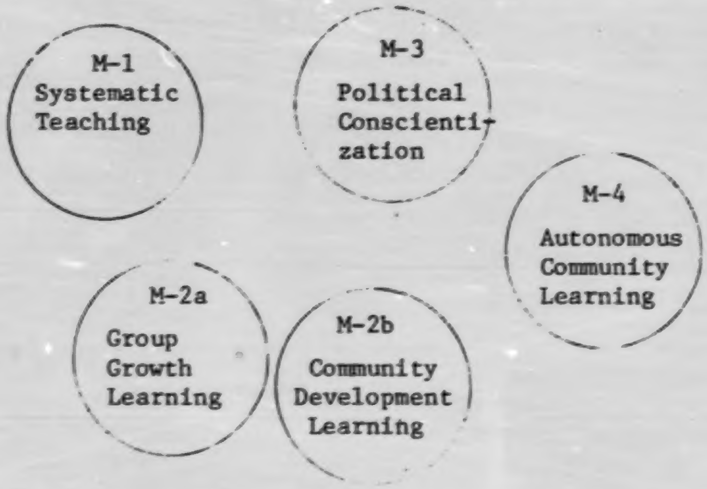
-Our second model (M-2a) which corresponds to Touraine's second sociological orientation based on social Decisions, emphasizes group growth learning.

-Our third model (M-2b) which, being derived from our second model, also corresponds to Touraine's second sociological orientation based on social Decisions, emphasizes community development learning.

-Our fourth model (M-3) which corresponds to Touraine's third sociological orientation based on social Controls, emphasizes political conscientization.

-Our fifth model (M-4) which corresponds to Touraine's fourth sociological orientation based on social Actions, emphasizes autonomous community learning. (cf. Diagram 1).

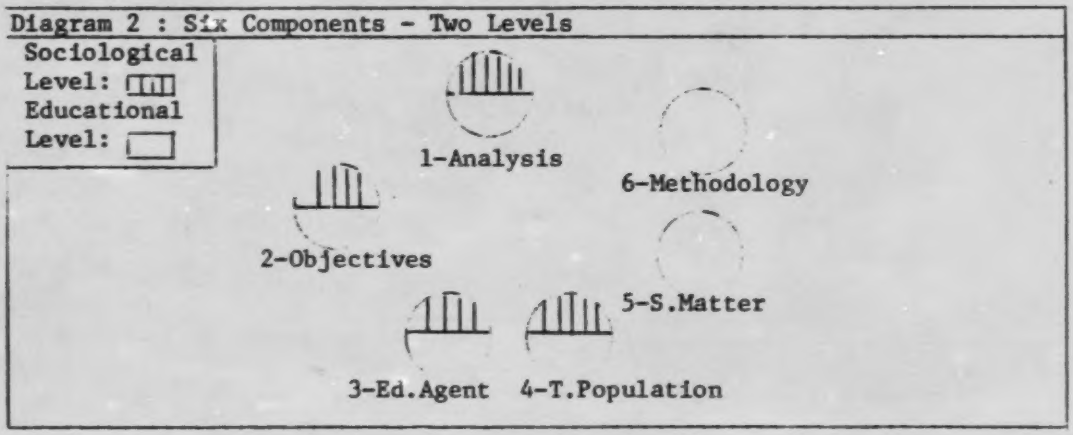
Diagram 1 : Our five Educational Models of Popular Education


M-1
Systematic Teaching
M-3
Political Conscientization
M-4
Autonomous Community Learning
M-2a
Group Growth Learning
M-2b
Community Development Learning

In order to carry out a detailed and comparative study of all five Models, we selected the six Components we believed to be the essential and complementary categories of any comprehensive Model or type of educational intervention: (1) the educational agent's Analysis of social and educational reality, (2) the Objectives of Popular Education, (3) the Educational Agent, (4) the Target Population, (5) the Subject Matter and (6) the Methodology. (cf. Diagram 2).

The first four Components (1-Agent's Analysis, 2-Objectives, 3-Educational Agent, 4-Target Population) are studied on two interrelated levels: a sociological level and an educational level, while the last two Components (5-Subject Matter and 6-Methodology) are only studied on an educational level. (cf. Diagram 2) (cf. Diagram 3).

Diagram 2 : Six Components - Two Levels



For each Component, we then selected, from our general synthesis, the variables which would best identify each one of our Components, and, consequently, best distinguish each Educational Model from the other four. Here are these main variables. (Most of them have subsequently been divided into various sub-variables.):

-1st Component - The Educational Agent's Analysis:
Sociological level: 1. Conception of society
2. Conception of power
3. Conception of societal finalities
Educational level: 4. Conception of the educational process
5. Conception of the Educator's role
6. Conception of the Clientele

-2nd Component - The Objectives:
Sociological level: 1. Social Objectives of Popular Education
Educational level: 2. Educational Objectives

-3rd Component - The Educational Agent (Voluntary Organization + Educator):
Sociological level: 1. The Organism's fields of activities
2. The Organism's Composition
3. The Educator's Identification with the Target Population

Educational level: 4. The Relationship established between the Educator and the Clientele
5. The Educator's Functions

-4th Component - The Target Population (Clientele):
Sociological level: 1. The Clientele's Composition
2. The Clientele's Identification with the Target Population
Educational level: 3. The Relationship established between the Clientele and the Educator

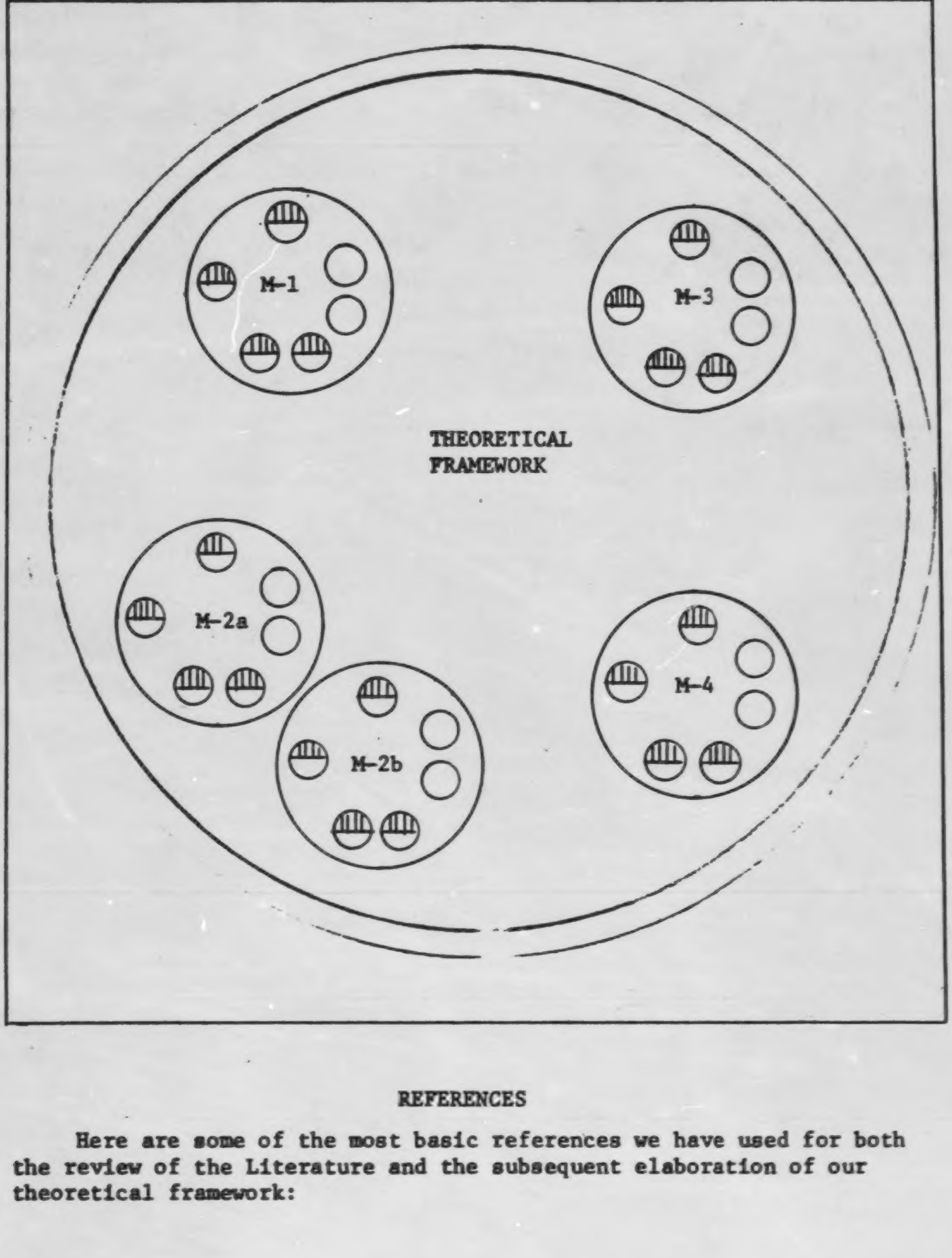
-5th Component - The Subject Matter:
Educational level: 1. Content

-6th Component - The Methodology:
Educational level: 1. The Method used
2. The Formats used
3. The Evaluation
4. The Educational Environment

We have then proceeded to locate, under each corresponding variable, the relevant elements brought out in our general synthesis, thus founding each of our variables and sub-variables upon data - statements or facts - taken directly from our review of the literature.

In order to verify this propounded theoretical framework, we will carry out structured interviews, in the field, with representative educators working in statistically selected Voluntary Organizations in Quebec.

Diagram 3: Our Theoretical Framework - Five Models - Six Components - Two Levels


M-1
M-3
THEORETICAL FRAMEWORK
M-2a
M-2b
M-4

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A Taxonomy of Voluntary Associations in Atlantic Canada

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BACKGROUND

For three years students and faculty in the Department of Adult Education have been collecting data on voluntary organizations in the Atlantic Region of Canada. As the number of organizations increased there appeared to be a pattern in their descriptions. While it seemed that all organizations used certain words in a general descriptive way, particular types of organizations used other words more specifically. As the number of organizations catalogued increased, the need to clarify these apparent patterns became manifest.

PURPOSE

The purpose of this study, then, is to isolate and examine the words most frequently used by voluntary organizations to describe their Learning Goals, Objectives, Activities and Conditions.

PROBLEM

Over the past two decades educators and social planners have focused increasing attention on the other-than-formal aspects of human learning. This is due to the population bulge moving from school age to work and older ages. It is also due to the information explosion which is necessitating a continuous re-education of humans in order that they might function effectively in a changing world.

Adult learning is limited in this study to that developmental learning which takes place in non-formal educational environments.

A nation such as Canada, due to its geo-political, cultural, and socio-economic structures, is singularly dependent upon the regional and community effort of its people to overcome problems and to create the dynamic interaction requisite for successful human development. The region which is the object of this inquiry is Atlantic Canada: New Brunswick, Prince Edward Island, Nova Scotia and Newfoundland.

HYPOTHESIS

The structured hypothesis for this investigation seeks to correlate the goals (what) with the objectives and activities (how), and ultimately with the condition (who). It is stated as follows:

If voluntary organizations have a common goal statement, then their objectives, activities and conditions can be described discreetly.

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LITERATURE

The importance of voluntary organizations to the successful development of communities and regions has been recognized by social scientists; at the same time educationists and social philosophers have pointed to various non-formal educational strategies as being effective in changing adult behavior. The various strands of literature usefully combine when examining humans in their social environment. Such considerations as the social need for associations (McMahon, 1970; Harper, 1959; Schaller, 1966; Melvin, 1979; King, 1956; Ingalls, 1979; and White, 1960) and their classification into groupings (MacIver, 1917; Ross, 1955) provide a context for the non-formal learning environments (Coombs, 1968; Kleis, 1973; Srinivasan, 1977; Grandstaff, 1974; and Ward, 1973) where life-long learning (Faure, 1970; Rogers, 1965; Illich, 1971; Tough, 1976; Freire, 1973; Maslow, 1971; Knowles, 1971; Skinner, 1971) happens.

METHODOLOGY

The methodology followed was that found in Rounds One and Two of Delphi. To a universe of 3040 organizations an open-ended questionnaire was administered asking them to identify their goals, objectives, activities and conditions. The questionnaire allowed for non-directive and indiscriminant answers. There were 628 responses, constituting sample 1. A vocabulary of 80 words was tabulated and ordered on the basis of a Chi Square test of significance ($df=1$, $p<.001$). The words, grouped according to goals, objectives, activities and conditions were prepared as a check-list and distributed to a refined universe of 2050 organizations. There were 852 responses, constituting sample 2. The vocabulary as checked by the respondents was treated as before.

The limitations in this methodology are those inherent in the Delphi approach.

DISCUSSION

A total of 66 words were identified as being descriptive of the goals, objectives, activities and conditions of the sample; 35 were statistically significant ($df=1$, $p=.001$). Of these 6 were goals, 5 were objectives, 5 were activities and 19 were conditions. A composite of the most frequently used words makes a useful description.

Voluntary associations in Atlantic Canada whose goals emphasize:

RECREATION, CULTURE, HUMAN RESOURCES DEVELOPMENT, COMMUNITY ECONOMIC DEVELOPMENT, SOCIAL SERVICE/WELFARE, AND HEALTH;

have objectives that include:

INFORMATION DISSEMINATION, TRAINING/REHABILITATION, PLANNING/COORDINATION/EVALUATION, ASSISTANCE and DEMONSTRATION;

conduct activities that centre around:

MEETINGS, LEARNING EXPERIENCES, SHORT COURSES, FUND RAISING/ DISTRIBUTION, and COMPETITIONS;

whose membership is composed primarily of:

ADULTS irrespective of sex, HUMAN/COMMUNITY SERVICE WORKERS, BUSINESS PERSONS, PROFESSIONALS, PRIMARY PRODUCERS, RELIGIOUS, and ARTISANS;

for the benefit of themselves and/or:

YOUTH, ELDERLY, SPORTSPERSONS, UNDERPRIVILEDGED, PHYSICALLY/ MENTALLY DISABLED, ETHNOCULTURALISTS, ARTISTS, ENVIRONMENTALISTS, INFIRM, OFFENDERS and VICTIMS.

When each of the six goals is isolated, very particular descriptions emerge which suggest different learning environments. (Each of the six goal descriptions, and an analysis of the data, are developed in a longer paper to be presented at the conference.)

CONCLUSIONS AND RECOMMENDATIONS

The findings in this study suggest that voluntary organizations can be usefully described so that both general and discreet definitions result. It is essential to take these findings back to the organizations. Such would correspond to the Round Three of a Delphi study.

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The Judging Process in Adult Education Research

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INTRODUCTION

Decision-making/judging is an integral part of all research. However, the use of several individuals as judges is a special research technique that can be used to collect data and to check for acceptable levels of reliability and validity. The judging process includes specifying of criteria, coding of events/behaviors according to these criteria and then determination of the reliability and validity of the criteria and the judging. Although judging is a commonly employed and well accepted research technique in adult education, it is complex and requires care if it is to be employed properly. Yet, there is no current, single source of information to guide researchers in the use of judging. The result is often a long and tedious process of learning by trial and error that can lead to inappropriate uses of the technique.

Available literature on judging is dated and scattered. Further, most considerations of judging are found in either personnel or student evaluation literature or in psychological literature dealing with perception. Although this literature offers guidance in the use of judges in research, it fails to address adequately the use of judges in adult education research.

The literature on personnel and student evaluation is couched in language consistent with assigning a value judgment to personal or work related attributes. This approach may be appropriate for some research in adult education, but it does overlook the use of judges in describing phenomena or in checking credibility of data analyses. Further, because evaluative language may be inadvertently used in circumstances where only description is required (e.g., the use of the term, 'rating,' which implies a value judgment), judges may be confused about the purpose of the task researchers are asking them to undertake. For this reason, the terms, 'coder' and 'coding,' are more appropriate for situations where judges are asked only to describe or check the credibility of data analyses.

Except for a few books on psychometric theory published during the 1950's and 1960's, the literature fails to address all aspects of judging and how these should be handled properly. Further, most articles deal with single components and errors of the judging process, and while adding to our knowledge of the technique, fail to address the whole process of judging.

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The adult education literature is devoid of any systematic treatment of judging. Yet, adult education researchers use the technique frequently in basic research efforts and in program evaluations and other applied studies as well. The purpose of this paper, then, is to lay the foundation for the proper use of judges/coders in adult education research.

APPROPRIATENESS OF JUDGING AS A RESEARCH TECHNIQUE

Two basic and interrelated premises underlie the use of judges in research. The first premise is that judgments of several persons are more valid than the judgment of one person. Thus, when evaluating personnel, students and programs, we are urged to rely on more judgments than our own to insure validity and reliability of evaluations. The same premise is used when using judges to categorize variables and to check the credibility of data analyses. Several persons' judgments about variables and their classification into categories provide face validity for research instruments. And, several persons' judgments about how either quantitative or qualitative data should be interpreted adds to the credibility of research findings and conclusions.

The second premise for the use of judges is that judging provides an alternative to collecting data through self-reports and testing. In some cases judging is the most appropriate means for collecting data -- for example, when programs are described along some dimension. (3) In other cases, judging may be used as a means of checking the reliability and validity of self-reports. For example, data about persons' attitudes can be obtained with a self-report instrument, and these measures can be checked by having judges code tape-recorded interviews with subjects. Judging also provides a means for observing and coding behavior in real-life settings and comparing these data with information obtained through test instruments. For example, data collected from tests of persons' cognitive controls can be compared with coding of persons' actual use of cognitive controls in a small group setting. (4)

The two premises upon which use of judging is based differ in their function in research. One is based upon the need for reliability and validity in data collection and analyses. The other is based within the context of how data can best be collected to address a particular research problem. Either premise alone provides a sufficient rationale for use of judging as a research technique.

STRENGTHS, WEAKNESSES AND SOURCES OF ERROR

Like all research techniques, judging has its inherent strengths and weaknesses. These can be categorized into two groups: (A) those related to research methodology; and (B) those related to psychometric considerations of data collection and analyses.

The major strength of judging is its applicability in a wide range of research designs and situations. Judging can be used in case study research to code data collected through in-depth interviews and documentation; it can be used in survey research to develop survey instruments, to categorize instrument items into groups addressing the same variable, to actually describe the phenomena being studied and to test the reliability and validity of other forms of data collection; and judging can be used in experimental designs in much the same way it is used in survey research. As with all research techniques, judging provides a useful means of collecting data with adequate levels of reliability and validity if it is properly employed.

Judging can weaken a research effort, however, if it is inappropriate to the problem being studied or inappropriate to the research methodology being used. The appropriateness of judging is dependent in part upon whether the variables/behaviors to be judged are overt for judges to observe and whether judges have adequate opportunity to observe the variables/behaviors they are to judge. (8:360) If either condition is absent, judging should be avoided. Further, judging may not be practical even if the conditions of overtness and observation are met. For example, if the attitudes of a large sample are to be studied, a survey instrument is more practical than having a group of judges code a large number of tape-recorded interviews. Judging does require a time commitment from judges, and researchers must insure the time commitment required is reasonable. Further, judging is a slower process of data collection than surveying or testing. The decision to use judges in place of some form of self-report or testing must be made with consideration of the time researchers are willing to devote to data collection. Of course, this weakness has to be weighed with other considerations, and researchers may be faced with a situation where the research problem requires judging, although use of this technique will result in data collection taking longer than desired.

Use of judges does not excuse the researcher from careful development of adequate instrumentation that clearly specifies the dimension being studied and the criteria used to define the dimension. (5, 8) This is neither a weakness nor strength of the technique, but a warning that judging provides no easy means of data collection.

Other weaknesses of judging are related to possible errors of measurement inherent in the technique. One of these is that coders are often idiosyncratic in their judgments. (8:360) Other errors that commonly weaken results of judging include:

A. The generosity or leniency error or judges' tendency to rate or describe the subject of judgment more favorably than they should. (5:278, 8:362)
B. The error of central tendency or the tendency for judges to be hesitant in making extreme judgments, thereby displacing subjects in the direction of the mean of the total group. (5:278-279)
C. The halo error or the tendency for judges to make judgments in terms of an overal impression instead of differentiating according to the specific attributes under study. (1, 2, 5:279, 8:362)
D. The logical error or the tendency for judges to judge similarly for traits that seem logically related in their minds. (5:279)
E. And finally, judging like all forms of measurement is subject to unacceptable levels of reliability and validity. (8:362-363)

Although inappropriate application of judging in a research design cannot be corrected, each weakness related to measurement error can be diminished if care is taken during judge selection and training and during the judging process itself. An adequate pilot study of the entire judging technique also serves to inform the researcher of potential problems and sources of error and allows corrections to be made before actual judging begins.

JUDGE SELECTION

When selecting judges five considerations should be taken into account:

A. Persons selected as judges must be committed to expending time and energy in the effort and must be willing to judge honestly and conscientiously. Judging is usually a long and arduous process, and people selected as judges must be willing to work long and hard to produce reliable and valid results. (8:355 & 360)

B. Persons selected as judges should not be involved or identify in any way with the subjects of judgment. Involvement and identification with the subjects of study increases the chances of the leniency error reducing reliability and validity. (8:360)

C. Reliability of judging will increase as the number of judges is increased because increasing the number of judges has the same effect on reliability as increasing the number of items on a research instrument. A larger number of judges helps cancel out random errors and compensates for idiosyncracies of individual judges. (7, 8) In this instance, researchers have to balance the need for high levels of reliability with the practical concerns of dealing with and training a large number of judges. Rosenthal provides an excellent table and method for exploring the balance between desired reliability and the number of judges required. (7)

D. Diversity among judges is important to validity of judging. The more diverse the backgrounds, perspectives and personalities of individuals selected as judges, the more representative their judgments will be of a larger population, and the more evidence the researcher will have that their judgments are valid. The principal components Q factor analysis is one means of testing whether a diverse group of judges made their judgments similarly and along the same dimension. A one factor solution supplies evidence that judgments and the dimension being measured are valid. (6:648-480)

E. Training of judges is facilitated if judges are familiar with the context and setting of the research project and the theoretical framework being employed. For example, using elementary school teachers as judges in a study of adult learning requires more effort in training than use of adult educators. This familiarity, however, may work against the need for diversity among judges. Researchers must balance the need for diversity with the practical considerations of time and budget needed to train those unfamiliar with the research context, setting and theory.

The best way to proceed in judge selection is to develop a large pool of individuals who are willing to make a commitment of time and effort and are sufficiently diverse and uninvolved with the subjects of judgment. From this pool, individuals then can be selected on the basis of the required number of judges and a proper balance between diversity and familiarity with the research context and setting. By including all considerations in developing a pool of possible judges, researchers avoid the weakness of relying only upon the most common criterion used in judge selection -- the person's willingness to undertake the task.

JUDGE TRAINING

Judge training should include five components. First, researchers should have available in organized and written form the following items: a description of the theoretical framework; criteria for judging; instruments; and instructions for judging. These items must be accessible to judges for study and reference during training and judging. Second, these four items should be discussed thoroughly so the judges have a clear and precise understanding of them. Discussion of the theoretical framework and criteria will do much to prevent the logical error of judging because it helps insure judges make no incorrect connections among unrelated attributes. Preparation and discussion of detailed instructions helps insure consistency in the way the judges go about their task, and reduces the chance of errors due to idiosyncratic judging methods.

Third, examples of subjects exhibiting all attributes to be considered during judging should be presented and discussed. This gives judges an opportunity to see how criteria are to be applied to real phenomena. Fourth, judge training should include a thorough discussion of all possible errors inherent in judging. With an awareness of leniency, halo, central tendency and logical errors, judges are more apt to avoid them when judging. Discussion of the halo and leniency errors during training has been shown to have good results in reducing the occurence of these errors during judging. (1, 2) Discussion of other errors should have similar effects.

Finally, judges should be given the opportunity to practice judging and discuss their practice experiences. An excellent way to conduct practice exercises is to have judges judge independently and then reconvene to discuss their experiences. During discussions, problems can be identified and solved and the researcher can be assured that judges are following instructions and using criteria correctly. (5:280)

The time required for judge training cannot be pre-specified. Training should end only when the researcher is convinced that judges are ready to make accurate, reliable and valid judgments. One way to test judge readiness is to compute interjudge reliability for practice exercises. When an acceptable level of reliability is achieved, judges can be permitted to begin the task for which they have been trained. Experience with a pilot study of judging also helps the researcher make the decision about judges' readiness to proceed with the task.

JUDGING

Judging should be done independently. Independent judging has been found to be superior to judgments made through group decision. Pooling individual judgments is the only sure way of cancelling out random errors and errors due to idiosyncracies of individual judges. (8:378)

When judging begins, the researcher's responsibilities continue. The researcher should keep close contact with all judges to insure that instructions for judging are being followed, criteria are being used correctly and judges are carrying out their task with care and precision. If problems arise during judging, the researcher may have to counsel individual judges or reconvene the group for an additional training session where problems can be addressed and solved. Care should be taken to insure that additional training sessions do not interfere with the independence of the judging process.

SUMMARY

This paper has reviewed those research situations where judging is appropriate. It has examined this technique, and has suggested procedures for reducing error and improving validity and reliability. If used appropriately and with care, judging provides a productive and valuable way to achieve the goals of a research effort.

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Dimensions of Control and Project Work Outcomes

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The aim of the research described here was to examine how project work attitudes and outcomes were related to a personality construct defined as sense of control and how these relationships differed, if they did so, from those found with traditional (non-project work) outcomes which go to make up academic achievement.

All project work involves a dimension of self-controlled activity which is somewhat akin to initiative and the ability of directing one's own learning activities. It was argued elsewhere (2) that control in project work is developmental in nature and that this form of instruction needs to be geared to student ability in this respect. Little however is presently known from empirical sources about this aspect of project work.

The sense of control a person has over what happens to him is a dimension which has been extensively studied in social psychology (6,10) and to a limited extent in educational psychology as well. A number of tests of this dimension (called locus of control), which ranges from internal control (based on the self) to external control (based on outside influences and luck), have been devised, with the most influential probably being the one by Rotter (12).

Within the educational arena, some relationships of internal locus of control with academic achievement have been established by previous research, although the overall picture remains somewhat inconsistent. Likewise, locus of control has been found to interact with teaching strategy and study habits. A review of this research is provided by Lefcourt (6).

A second psychological dimension of control, more directly educational this time although less established as well, is one termed 'syllabus orientation' (5,9). The syllabus-bound student confines his learning activities somewhat rigidly to the syllabus and is less happy having to choose himself how and what to learn. The syllabus-free student shows the opposite characteristics: he enjoys pursuing his own ideas and feels somewhat restricted by a tight curriculum or a highly structured course.

Both locus of control and syllabus orientation, as two dimensions representing aspects of the concept of control, suggest themselves as personality/cognitive factors which potentially play an important part in the determination of a student's response to project work. Two aspects of this response have been examined in this study: attitudes to project work and achievement in project work.

Focus of the Study

From previous research, internal locus of control has been interpreted as being associated with the ability to more readily attain sought-after outcomes; internals are more inquisitive, more curious, and more apt to persist with a task over time (6). Internals have also been found to perform better than externals in academic contexts which stress student control of contingencies, such as individualized instruction (1, 8). From this and the special nature of project work, the following hypotheses were established and have been tested in this study:

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- that students who are characterized as internals are more successful at project work than those characterized as externals;
- that the relationship between internal control and achievement in project work will be stronger with unstructured projects than with structured ones;
- that internal control will also be related to achievement in non-project work, but to a lesser degree than in project work;
- that similar relationships to those above will be obtained with respect to attitudes to project work;
- that students characterized as syllabus-free will be more successful at project work and certainly more positive toward it than are syllabus-bound students.

Thus the major focus of the study is the prediction that project work, and to a greater extent unstructured project work, is better received and found easier to perform by students who show high internal control and/or who are syllabus-free in relation to academic work.

An interesting but subsidiary aim of this study was to further explore the nature of the construct of control, as it is represented by the locus of control and the syllabus orientation questionnaires. Of particular interest was the extent to which the two dimensions overlap and whether they differently account for relationships with project work.

METHOD

Six different courses from the Open University which included a project component were selected for the study. The Open University is a distance-teaching institution which offers a university education to adults studying at home. The selected courses covered areas such as ecology, the history of architecture, design of the future, learning psychology, educational research, and social psychology. Each of these courses consisted of two parts: (i) a presentation of subject matter content, conforming to a traditional teaching approach for the Open University; and (ii) a project component, this latter part accounting for 10 to 35% of the student's time depending on the course. The first three of these courses were regarded as involving an unstructured project, whereas the other three each contained a more structured project.

Three questionnaires were assembled for the study. The first of these was Rotter's 29-item internal-external locus of control questionnaire (12). The second was Parlett's syllabus orientation questionnaire (9), and the third was an ad-hoc questionnaire seeking the student's reactions to project work and basic demographic data.

The locus of control questionnaire was scored in the external direction, such that high scores (maximum: 23) indicate an external locus of control. The syllabus orientation questionnaire was scored in the syllabus-bound direction, such that high scores (maximum: 27) indicate an orientation toward the syllabus.

A scale reflecting attitude toward project work was made up of four items from the student reactions questionnaire. These items were the following: 1. How interesting did you find the project work?; 2. How worthwhile did you find it?; 3. Are you generally satisfied with your project work?; 4. Do you generally enjoy project work? The students responded on a 4-point scale from 'very' to 'not at all'. The scale was an additive one, with high scores (maximum: 12) indicating a favorable attitude toward project work.

The other items in the student reactions questionnaire enquired about varied aspects of their project work, such as whether they had completed it, whether project work was one of the reasons which had attracted them to the course, whether they had initially felt apprehensive about project work, etc.

The questionnaires were sent to a total of 740 students who had just finished one of the 6 courses selected for the study and who were at that time awaiting their exam results. The questionnaires were completed and returned by 73% of the sample, but 12% of the questionnaires returned had to be eliminated because of incomplete information (for instance, failure to respond to all items). Thus the data based consisted of questionnaire replies from a total of 463 students.

To this data base were added the students' achievement scores in the particular courses under study. Two achievement scores were formed: a project achievement score and a non-project score, this latter one representing achievement derived from the traditional content-based part of the course. Both achievement scores were composed by aggregating the student's individual assignment scores throughout the year in the areas of project work on the one hand and non-project work on the other. These scores were obtained from the University's central records.

RESULTS

The study thus involved the establishment of multiple relationships between two dimensions of control (locus of control and syllabus orientation), two project work outcomes (attitudes and achievement), one non-project work outcome (achievement), and all this within a framework which distinguished between two types of project (structured and unstructured). Additionally, demographic data relationships (age and sex) were also examined.

The data were analyzed through correlational techniques. The means and standard deviations (in parentheses) of the main variables involved in the study are presented below according to groups based on type of project work. The means for each of the two control variables (locus of control and syllabus orientation) are very similar to one another across the two groups involved in the study, indicating that the total sample of students was uniform in terms of these characteristics.

	LOCUS OF CONTROL	SYLLABUS-ORIENTATION	ATTITUDE TO PROJECT WORK	PROJECT WORK SCORE	ESSAY WORK SCORE
STRUCTURED PROJECT WORK	10.6 (4.6)	12.0 (4.5)	8.4 (2.1)	7.1 (1.5)	7.0 (1.2)
UNSTRUCTURED PROJECT WORK	11.2 (4.8)	12.1 (4.4)	8.8 (2.7)	7.2 (1.5)	6.9 (1.2)

This was as expected. Attitude toward project work was approximately equal as well in the two groups, the sample difference being a very slight one. The two groups also compared in terms of project and essay scores, again as expected, since grading is norm-referenced in the Open University.

The inter-correlations of the main variables are presented below according to type of project (top right triangle: structured project work; bottom left triangle: unstructured project work).

	1	2	3	4	5
1. Locus of Control		.16*	-.06	.00	-.06
2. Syllabus-boundness	-.05		-.23**	-.03	.04
3. Attitude to Project Work	-.15	-.22**		.30**	.08
4. Project Work Score	-.05	-.03	.45**		.52**
5. Essay Work Score	.00	.04	.15	.38**	

Note: * p < .01
** p < .001

Locus of Control

Perceived locus of control showed a slight positive correlation with syllabus orientation in the case of students involved in structured project work only. In this group, high externality of locus of control was associated with being more closely bound to the curriculum. This association is however only a slight one and is not replicated in the other group. Thus locus of control and syllabus orientation can be considered as fairly independent aspects of the concept of control.

In relation to the achievement outcomes examined in this study, locus of control was found to be related to neither of them. All correlations were negligible, with the highest of them being -.15 (which was not significant at the .01 level of significance).

Syllabus orientation

Syllabus orientation was found to correlate negatively with attitude to project work, and this similarly in each of the two groups (-.22 and -.23). Thus, the more a student is closely tied to the curriculum, the less favorable will be his disposition toward project work.

As with locus of control, syllabus orientation shows little relationship with the essay or project work scores, the highest correlation being -.05.

Achievement and Attitudes

The two forms of academic achievement examined in the study (essay work and project work) were moderately correlated (.38 and .52) as would be expected. The better students were good at both types of work while the poorer students tended to do less well in either type of work. The lower of the two correlations is the one computed for the group involved in unstructured project work, which may simply be a reflection that this type of project is more difficult to assess.

Project work scores are also moderately correlated with attitude toward project work (.30 and .45), a finding which one would certainly expect. In this instance, the group involved in unstructured project work is the one with the larger correlation.

Other factors

Age was found to show a slight negative correlation with locus of control (-.18 for the two groups combined), indicating a slight shift toward internality as one gets older. No such correlation was found in the case of syllabus orientation, the figure being -.04. Thus syllabus orientation is completely independent of age.

Correlations involving the sex of the students were computed but failed to reveal any important relationships with other variables or to discriminate between the two groups of students involved in the study. The only relationships involving sex were with previous experience (-.14) and initial apprehension toward project work (-.17). Men tended to have slightly more previous experience with project work than women, but they were also slightly more apprehensive about project work initially.

Nothing particularly striking came out of the correlations between various other reactions to project work and the main variables under study, except a confirmation that syllabus-bound students do not prefer project work as much as their syllabus-free counterparts. The correlation between syllabus orientation and enjoyment of project work was indeed -.28.

DISCUSSION

The most interesting finding revealed by the present study is the lack of relationship between the two indices of sense of control which were examined and academic outcomes of project work. The correlations between these various variables ranged from -.06 to .04, indicating little relationship. Thus a student is as likely to be successful in his project work if he is a high internal (in locus of control) as he would be if he were a high external. Likewise, whether he is basically syllabus-bound or syllabus-free will not influence his success in project work.

The picture varies slightly however when we consider attitude toward project work. The mild negative correlation between attitude and syllabus orientation indicates that the more a student is syllabus-free, the more favorable his attitude to his project work is likely to be. This is certainly an advantage for this type of student, although attitude to project work is generally high overall.

The relationship between attitude and syllabus orientation was not influenced by the type of project. The relationship was identical in both types of project work, structured and unstructured.

Students reacted just about as favorably to structured as to unstructured project work. There was however a greater percentage of students with a very favorable attitude in the case of unstructural project work (45% as opposed to 30%). Students have slightly stronger feelings toward project work in this instance, a fact which also transpired in previous work (4).

Type of project had no influence on the way in which students with different senses of control reacted to project work or succeeded with their work. This is contrary to expectation, but further shows that students with a low sense of control can manage project work just as well as their counterparts with high control, irrespective of the degree of structure of the project.

The finding that locus of control and syllabus orientation do not generally correlate (although they did so very slightly in one instance) is an indication that the two instruments would seem to tap different, non-overlapping facets of the variable called sense of control. Locus of control deals mainly with the control exerted over one's everyday social life (in the extended sense of the term); syllabus orientation on the other hand is restricted to the academic setting and reflects one's ability to diverge or not from the set curriculum. Both factors involve a feeling of independence (or lack thereof) and thus constitute a dimension of control, although in different realms as it were, the one in the purely academic setting, the other in the more extended global life setting.

In conclusion, the present study revealed that success in project work, whether of a structured or unstructured type, does not seem to be influenced by one's sense of control. This is contrary to expectation, but generally encouraging, especially for those students low on control. Syllabus orientation was found to be related to how one reacted to project work, although here again type of project did not modify the relationship. Finally, an interesting finding was the one that locus of control and syllabus orientation would seem to constitute two independent facets of the variable 'sense of control'.

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A qui s'adresse l'entrainement à la créativité?

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C'est au cours de la démarche d'élaboration d'un programme pour le développement de la créativité qu'est apparu au comité concerné le besoin de mieux connaître la clientèle qu'un tel projet pourrait intéresser.

En premier lieu, celui-ci désirait connaître combien de personnes répondraient à une telle offre de service, et quelles en seraient les caractéristiques en terme d'âge, de sexe, de scolarité, de disponibilité, etc...

En deuxième lieu, il désirait savoir si cette clientèle serait semblable ou différente d'une population de "déjà créateurs": le programme s'adresserait-il à des individus pour qui la difficulté à créer nécessite une démarche personnelle importante ou plutôt à des adultes dont la vie de tous les jours permet déjà de deviner qu'ils ont en eux un potentiel qu'il serait facile d'actualiser.

Enfin, des données complémentaires sur leur niveau actuel de performance créative, ainsi que sur les raisons qui les amèneraient à participer à un tel projet éducatif semblaient tout aussi pertinentes.

METHODOLOGIE

L'échantillonnage s'est fait par le biais d'une annonce parue dans les journaux, invitant les gens intéressés par un tel projet éducatif à nous contacter. Ceux-ci sont alors conviés à cette soirée dont on leur explique les buts et le déroulement. Cette approche offrait deux avantages principaux: elle permettait

1) de rejoindre la même population que celle qui serait rejointe lors du lancement du programme, en utilisant les mêmes média que ceux qui étaient prévus pour le lancement;
2) d'avoir un échantillon assez représentatif d'une population qui s'inscrirait effectivement; en effet les sujets ne doivent pas qu'émettre une opinion, mais aussi se déplacer et consacrer une soirée de leur temps, ce qui est plus significatif d'un intérêt réel.

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Pour répondre aux objectifs visés, quatre instruments furent utilisés.

1) Un questionnaire, élaboré avec le comité, permettant d'identifier l'échantillon en terme d'âge, sexe, statut civil, occupation, scolarité antérieure, activités artistiques, image de soi en tant que créateur, disponibilité temporelle et financière pour le programme, etc...

2) Une échelle de motivation: il s'agit de l'"Echelle de participation aux études"de Boshier, qui se compose de quarante raisons ou motivations à s'inscrire à une activité éducative.

   Le répondant doit déterminer l'importance qu'a pu avoir chacune de ces raisons sur une échelle de quatre niveaux, allant d' "aucune influence" à "beaucoup d'influence".

3) Un test de personnalité: le "Forest Sigma-30". Basé sur la théorie des besoins de Murray, il permet de mesurer vingt dimensions primaires de la personnalité à l'aide de deux cents énoncés d'activités que le sujet doit coter sur une échelle de Likert. Ces vingt dimensions primaires sont regroupées par analyse factorielle en sept dimensions intermédiaires, elles-mêmes regroupées en trois dimensions de base.

4) Un test de pensée divergente: un test a été utilisé pour tenter de mesurer dix-huit des vingt-quatre habiletés composant la pensée divergente selon le modèle de Guilford (1967).

   La passation des tests se fait en deux périodes séparées par une pause-café. N'étant pas une session de sélection, les sujets n'identifient leurs copies qu'avec un pseudonyme permettant de regrouper toutes les réponses d'un même sujet pour fin d'analyse. Lorsque les tests sont terminés, les participants sont invités à se répartir en petits groupes pour échanger de façon informelle avec des membres du comité sur leurs attentes ainsi que sur les raisons qui les amènent à s'intéresser à un tel projet.

RESULTATS

1) L'échantillon dans son ensemble

La soirée regroupa 57 adultes dont l'âge moyen était d'environ 38 ans. Les femmes y étaient nettement majoritaires (64.8%). 48.1% des sujets étaient mariés, 22% célibataires, 18.5% séparés, 9.3% divorcés, 1.9% veufs.
Le projet attire des gens assez scolarisés: les 2/3 des répondants ont déjà suivi des études universitaires et 18.5%, des études collégiales. Ces adultes sont principalement du domaine de l'enseignement (25%), des arts (23.2%), de la publicité et marketing (16.1%) ou sont des employés de bureau (14.3%).
Près de la moitié (42.6%) ont déjà vécu une expérience de croissance personnelle; plus de la moitié (57.4%) ont déjà participé à des sessions d'activités artistiques. A cet effet, 64.8% se considèrent créateurs, et les 2/3 sont, de leur avis, considérés créateurs par leur entourage; près de 80% des sujets ont, au moment de répondre, des activités qu'ils considèrent comme créatives, celles-ci allant de la pratique d'un art à leurs activités professionnelles.

L' "Echelle de participation aux études" de Boshier devait révéler que c'est principalement parce qu'ils ont le goût de vivre des expériences d'apprentissage et pour mieux se connaître et mieux connaître les autres que ces candidats s'inscriraient à ce projet. Les dix motivations principales sont reproduites au tableau I. Les scores sont obtenus en attribuant 4 points aux réponses "beaucoup d'influence"; 3 points aux réponses "passablement d'influence", et ainsi de suite.

TABLEAU I

Hiérarchie des motivations à l'inscription selon l'"Echelle de participation aux études" de Boshier

Item	Score moyen	Rang
# 7 Pour satisfaire ma curiosité d'esprit	3.4	1
#37 Pour le simple plaisir d'apprendre	3.3	2
#23 Pour acquérir des connaissances des relations humaines	3.2	3
#19 Pour acquérir une meilleure connaissance de moi-même et de mes problèmes	3.1	4
# 1 Pour le simple plaisir d'acquérir des connaissances	3.0	5.5
#25 Pour la satisfaction que me donne une situation d'apprentissage	3.0	5.5
#11 Pour apporter un complément à mes études antérieures	2.9	8
#18 Pour augmenter ma compétence professionnelle	2.9	8
#39 Pour améliorer mes aptitudes à participer à un travail communautaire	2.9	8
#10 Pour améliorer ma situation professionnelle	2.7	10

TABLEAU II

Stanines obtenus aux 30 dimensions du test de personnalité "Forest Sigma-30

	Dimensions	stanines moyens	écart type	écart à la moyenne
dimensions primaires	ambition	4.21	2.11	-0.79
	déférence	4.70	1.82	-0.30
	méthode	4.68	1.75	-0.32
	exhibitionisme	4.21	1.83	-0.79
	autonomie	5.47	1.73	+0.47
	affiliation	4.45	1.60	-0.55
	empathie	5.61	1.82	+0.61
	dépendance	3.77	1.93	-1.23
	leadership	4.87	1.87	-0.13
	pacifisme	5.21	1.88	+0.21
	sollicitude	4.14	1.88	-0.86
	changement	7.01	1.87	+2.01
	persévérance	5.31	1.80	+0.31
	hétérosexualité	4.68	1.91	-0.32
	agressivité	4.84	1.71	-0.16
	ordre	4.50	1.75	-0.50
	énergie	5.31	1.96	+0.31
	liberté	6.22	1.74	+1.22
	introspection	6.35	1.54	+1.35
	conformisme	3.56	1.80	-1.44
dimensions inter-médiaires	ascendant/soumission	5.43	1.52	+0.43
	dynamisme/apathie	5.30	1.79	+0.30
	égotisme/considération	4.63	1.91	-0.37
	individualisme/sociabilité	5.84	1.57	+0.84
	intériorité/conformité	6.68	1.59	+1.68
	rationalité/émotivité	4.96	1.94	-0.04
	discipline/insouciance	3.19	1.80	-1.81
dimensions de base	égocentrisme/allocentrisme	5.15	1.69	+0.15
	activité/passivité	5.42	1.59	+0.42
	contrôle/non-contrôle	2.94	1.83	-2.06

Le test de personnalité "Sigma-30", dont les résultats sont reproduits au tableau II, permet de dire qu'il s'agit d'une clientèle d'une grande fluidité émotive (donc peu rigide ou inhibée) cette fluidité se manifestant de deux façons:

1) par la prédominance de l'insouciance sur la discipline. Elle a donc plus tendance à prendre les choses comme elles viennent plutôt que

de tenter de contrôler ce qui lui arrive. Les scores élevés aux dimensions "liberté" et "changement" viennent d'ailleurs préciser l'attirance de ces personnes pour l'aventure, la nouveauté, l'imprévu, etc...

2) par la prédominance de l'intériorité sur la conformité: elle évalue ses actes et ceux des autres à partir de critères internes, plutôt que selon les normes et les convenances.

De plus, notons que la prépondérance de l'individualisme sur la sociabilité alliée au faible besoin de dépendance et d'affiliation, ainsi qu'au besoin élevé de liberté et d'autonomie permettent de supposer que ces personnes sont capables d'initier des choses nouvelles sans se laisser arrêter par les normes de l'entourage.

Enfin, le test de pensée divergente, dont les résultats ne peuvent être qu'indicatifs (son élaboration n'étant pas complétée), laisserait croire que la clientèle éventuelle de ce projet aurait une performance plus élevée que celle d'un groupe d'étudiant adultes dans les tâches à contenu figural.

2) Effet de l'âge, du sexe et de la catégorie occupationnelle

L'effet de l'âge, du sexe et de la catégorie occupationnelle fut ensuite vérifié sur l'ensemble des données accumulées. Cette vérification permet d'apporter les précisions suivantes:

- les 36 ans et plus donnent une performance créative moins élevée à plusieurs items du test de pensée divergente; en outre, ils sont sur le plan de la personnalité, moins égocentriques (t= 2.13, p= .038) et on t un besoin de contrôle moins marqué (t=2.53, p=.014) que les moins de 36 ans.

- l'effet du sexe se manifeste exclusivement au niveau de la personnalité; les femmes sont plus allocentriques que les hommes dans cet échantillon, elles manifestent significativement moins de besoins de leadership (t= 2.50, p= .016) et plus d'ordre (t= 2.49, p= .017). Elles sont aussi moins ambitieuses (t= 2.21, p= .032) et plus introspectives (t=3.10, p= .003).

- enfin, les catégories occupationnelles n'influencent pas de façon sensible les variables dépendantes de cette étude.

DISCUSSION

Les données accumulées sur l'échantillon pris dans son ensemble laissent donc apparaitre une continuité certaine entre le vécu actuel de ces adultes et leur choix de projet éducatif; en effet, ils se perçoivent et seraient perçus comme créateurs; ils ont une personnalité qui répond à l'image que se fait Rogers (1959) du créateur (ouverture à l'expérience, intériorité de l'évaluation, capacité de jouer avec les éléments et les concepts); et une performance créative supérieure à celle d'autres étudiants adultes.

Ces résultats peuvent s'interpréter par le fait que le contact répété avec la création permet de mieux définir ses besoins éducatifs dans ce domaine; par ailleurs, le fait que ces activités créatives soient maintenues dans le répertoire comportemental de l'individu laisse croire qu'il en retire certaines gratifications. En d'autres termes, le candidat aurait, au départ, à la fois une idée de ses besoins éducatifs, mais aussi une certaine évaluation de ses chances de réussite.

Il s'agit certainement là d'une situation relativement privilégiée, d'autant plus que cette probabilité de succès semble élevée pour la plupart des participants.

Ces résultats confirment cependant que dans une situation où le choix est possible (i.e. il ne s'agit pas de formation professionnelle, ou de clientèle forcée à un retour aux études) plusieurs principes déjà connus de l'éducation des adultes ressortent avec évidence.

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The Certainty Method: Application in Identifying Correlates of Success in an Open Learning Postsecondary Program

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This is a study of a nontraditional, learning-at-a-distance approach to offering college level courses for adult students of any age or educational background. Included were all of the 347 individual students enrolled in courses in five areas of study (accounting, psychology, home economics, history, and English Composition) offered during the first two semesters of an open learning program at a land grant university. The program utilized regularly broadcasted television lessons, learning centers and optional telephone contact with instructors in addition to the basic texts, study guides and other self-study materials.

OBJECTIVES FOR STUDY

There were two main objectives of the study: 1. To obtain attitudes and reactions of the learners toward the experience of enrolling in an open learning, college level course of this type including the learner's evaluation of the course and its components and the learner's views of the impact of the experience on his/her life style, family and self-identity and, 2. To identify learner characteristics which tended to correlate with a successful experience as viewed by the learner and as measured by satisfactory completion of the course.

Adults in ever increasing numbers are seeking additional education and at a time when the traditional college age population is remaining static or beginning to decline. Tailoring the educational offerings to the preferences and/or needs of these adults is vital to the success of adult education programs. Studies show that there tends to be a relationship between certain personality characteristics and educational-vocational interests and the field-dependent and field-independent cognitive styles of adults. It has also been established that individuals with certain cognitive styles tend to be more comfortable and productive in a learning situation in which the teaching strategies employed are compatible with the learner's cognitive styles. Therefore, if relationships could be identified between an adult student's educational-vocational interests, selected personality and demographic characteristics, and overall reaction to the evaluation of a coourse, the resulting information could be effective for improving student satisfaction if used by adult educators in program planning, course construction and delivery, and student support services.

DATA COLLECTION

Data were collected through the use of four instruments which included two questionnaires, a vocational interst inventory and a vocabulary test. Two of the instruments, the Student Information Questionnaire and the Strong-Campbell Interest Inventory, were administered to all enrolled students at the beginning

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of the course. The questionnaire was very comprehensive and included questions grouped into sections entitled: General Information, Education, Work, Leisure Time, Resources, Goals, Enrollment, and a space for additional general comments. The interest inventory, Strong-Campbell Interest inventory, was selected to gain information about the student's personality type, educational-vocational interest, and cognitive style of field dependence/independence. One of the major theories of career choice and development is the personality theory and the major assumption from this frame of reference is that an individual's personality structure reflects different need dispositions, and the satisfaction of these needs is sought in occupational choices. Also, many studies have examined the relationship of educational-vocational "interests" and "attitudes" to field-dependence-independence, and in the majority of these studies a vocational interest inventory was used. Providing an opportunity for the students to respond to an interest inventory could also be viewed by the student as a service since many were considering entering the job market or changing jobs. Both instruments could be self-administered and were sent to the students' homes.

The vocabulary test, the Nelson Denny Reading Test, Form C, Part I, Vocabulary Test, was selected for this study to ascertain the verbal proficiency of the students. Studies have identified a relationship between scores on this vocabulary test and continuation or dropout in final achievement test scores in postsecondary programs. A relationship has also been found between vocabulary scores and vocational interests. Since this test required timing, it was administered at learning centers which students visited for taking course tests and using reference materials. Neither was required for one course and therefore some of those students did not take this test.

The UMA-ISU Student Questionnaire was administered for the purpose of gaining an evaluation of the program from the students' perspective. It was assumed that the way in which an individual reacts to any experience is dependent on: 1. how he sees himself, 2. how he sees the situations in which he is involved, and 3. the interrelations of these two.

To gain a comprehensive view of the program from the students involved, numerous means were employed for selecting items for the questionnaire. An attempt was made to include items relating to the possible perceived effects of taking a course on the individual student, on the spouse and children of the student, on the student's performance on the job (if the student were employed), on her/his ability to cope with housekeeping chores, and the student's reaction to the various course components, the delivery system, and the overall idea of taking a course of this nature. The questionnaire consisted of 170 Likert-type attitude items and six open-ended questions added at the end of the questionnaire. These were added to give the respondent an opportunity to air any feelings that might not have been covered in the short answer portion of the instrument, and to expand on or explain any responses in greater detail.

The certainty method of scoring was used for this instrument. The scoring method is the coding or assignment of numbers to the stimulus. The certainty method incorporates a given response framework as well as assigning of numbers to stimuli. In using this method the respondent is required to make two decisions regarding a given stimulus: 1. a directional judgment (in this case, agree or disagree) and 2. a certainty judgment (from not very certain to very certain, or neutral) about the directional decision. Al to 99 continuum was used for this instrument. For this response framework the scores for the 99 categories can be obtained directly from a table of normal deviates (Z). Using this table, a response of 99 is coded as +2.326, 75 as +0.674, 50 as 0.000, 25 as -0.674 and 01 as -2.326. This transforms the original appearing equal scale by spreading out the tails and pushing together the middle occurrings. Thus it is not assumed that equal intervals exist between values selected by the respondent, and the differences in the responses are reflected to a great extent.

FINDINGS

Response rates were: 99 percent for the Student Information Questionnaire, 94 percent for the Strong-Campbell Interest Inventory, 86 percent for the UMA/ISU Student Questionnaire, and 69 percent for the Nelson-Denny Reading Test. Response to all instruments was on a voluntary basis.

Initial analysis of the Student Information Questionnaire resulted in frequency scores which provided a comprehensive view of the respondents. The two questionnaires were factor analyzed, and nine factors from the Student Information Questionnaire and 15 factors from the UMA/ISU Student Questionnaire were selected for scoring. A one-way univariate analysis of variance was performed by course for the scales identified in the two questionnaires and the Strong-Campbell Interest Inventory. An F test was used to detect differences. For each course, a correlation matrix was run on the identified scales in the three instruments, the information from the Nelson-Denny Reading Test, Form C, Part I, Vocabulary Test, and other demographic variables. The resulting correlation matrices were examined for high correlations, and a correlation matrix was formed by pooling within courses. This matrix was examined for high correlations. On the basis of the factor analysis, the UMA/ISU Student Questionnaire was revised.

Course differences between students were found in relation to one scale in the Strong-Campbell Interest Inventory, three factors in the Student Information Questionnaire, and seven factors in the UMA/ISU Student Questionnaire. In terms of sex composition, the individuals enrolled in these various courses were not different.

The interest inventory scale and the factors from the two questionnaires showing course differences were as follows:

Strong-Campbell Interest Inventory:

Conventional Scale (one of the six "General Occupational Theme Scales" of the Strong Vocational Interest Blank and the Strong-Vocational Interest Inventory based on J. L. Holland's theory of occupational environments and personality types).

Student Information Questionnaire:

(students differed by course on three factors descriptively named as follows):

1. Person Centered Vocational/Practical Goals
2. Personal Goal of Increasing Scope of Interests and Awareness
3. Educational Background of the Student, His/Her Parents and Spouse

UMA/ISU Student Questionnaire:

(students differed by course on seven factors descriptively named as follows):

1. Evaluation of the Video Component of the Course
2. Evaluation of the Course Structure
3. Availability of Faculty
4. Family Involvement - Benefit to Family
5. Vocational Vs. Personal Development Motivation
6. Vocational Orientation
7. Stress Engendered by Involvement in the Course Relating to the Individual

In addition to the differences in the students based on the course in which the student elected to enroll is the information gained from the intercorrelations among variables within the courses which adds to the descriptions of the students specific to the type of course they choose. Comprehensive descriptions of the type of student enrolled in data of the five different kinds of courses resulted from the analysis of the data. The descriptions included the students' educational-vocational interests, personality types, demographic characteristics, goals, motivation, reaction to the effect of the course on themselves and their families, and evaluation of the course.

On the basis of information gained through this study, important course related differences were identified in an otherwise rather homogeneous group of quite typical adult students. This has implications for individuals involved in adult continuing and basic education, particularly in the areas of program planning, curriculum, counseling, methods and materials. Since differences were identified in the students enrolled in these five courses, and each of the five courses were representative of different subject matter areas, a similar study might be conducted for courses in subject matter areas not included in this study. This would add to a body of knowledge useful to all involved in the education of adults.

Learning and the Arts

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The enjoyment of art, in some form or other, is an experience common to all people. Whether it be the enjoyment of music, literature, drama, painting, film or dance, man has sought such experiences in all places, in all times, and under all conditions. Art--and artists--have been revered, reviled, and rejected; and the experience of art--the aesthetic experience--has been viewed as enriching or degrading, divine or demonic, ennobling or corrupting. Governments have forbidden art, and governments have prescribed art. Artists have protested bitterly about the neglect of their work and about the lack of appreciation of their role in society. Philosophers have consistently pointed to art as the finest product of human expression and as a model for all human development.

Therefore, because of its significant presence in human activity, because of its historical importance, because of its mysterious and controversial role in society, and especially because of its ability to move men and societies, art, and the experience of art, deserves the careful attention of educators. It can be assumed that educators are particularly curious about what is happening in an aesthetic experience, from the point of view of learning. What is the effect of an aesthetic experience upon the one experiencing it? What part of human consciousness is being addressed by art? What is being conveyed or communicated by the artist; does the artist, in fact, regard himself as a teacher?

The purpose of this paper will be to seek answers to these and to related questions about the nature of the aesthetic experience and its function in human development. Answers will be sought in the comments of artists on their own work, and on art in general, and in the writings of philosophers who have been concerned with philosophy of aesthetics. We shall be looking at the aesthetic experience from the perceiver's--or learner's--point of view; we shall not be examining the learning experience of the artist as he creates his art. Using Dewey's terms, we shall be discussing the value of "undergoing" art as distinct from "doing" art. In this study, data which has been gathered from interviews with thirty Canadian artists will be compared with similar material derived from other artists' statements on art and from philosophical speculation.

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The Aesthetic Experience

Unlike many learning experiences which are provided by educators in our society, and which are predominantly cognitive (in Bloom's[1] sense of that word), rational and intellectual, the experience of the arts seems to be of a different order. Art deals less with ideas, concepts, propositions, proofs and facts, and more with images, perceptions, impressions and relations. Great art is seldom didactic but achieves its effect by indirection, by requiring the perceiver to become a creative partner and to experience, in an appropriate degree, what the artist experienced in creating his work.

Plato long ago recognized the power of art to shape and influence the mind and soul of man. Speaking particularly of the use of music in cultivating good qualities, he states:

> And therefore, I said Glaucon, musical training is a more potent instrument than any other, because rhythm and harmony find their way into the inward places of the soul, on which they mightily fasten, imparting grace, and making the soul of him who is rightly educated graceful, or of him who is ill-educated ungraceful; and also because he who has received this true education of the inner being will most shrewdly perceive omissions or faults in art and nature, and with the true taste, while he praises and rejoices over and receives into his soul the good, and becomes noble and good, he will justly blame and hate the bad, now in the days of his youth, even before he is able to know the reason why; and when reason comes he will recognize and salute the friend with whom his education has made him long familiar.[2]

This statement of Plato's regarding the effect of aesthetic education on behavior and character has yet to be improved upon, and it is still a central tenet in the writings of contemporary aestheticians who promote aesthetic education as the central discipline for the development of human beings.

The nature and purpose of the aesthetic experience has remained a favourite topic of artists and philosophers alike. Shelley, in his famous "A Defence of Poetry" speaks of the nature and purpose of poetry:

> The great instrument of moral good is the imagination; and poetry administers to the effect by acting upon the cause. Poetry enlarges the circumference of the imagination by replenishing it with thoughts of ever new delight, which have the power of attracting or assimilating to their own nature all other thoughts and which form new intervals and interstices whose void forever craves fresh food. Poetry strengthens the faculty which is the organ of the moral nature of man, in the same manner as exercise strengthens a limb.[3]

Shelley's views about the nature and purpose of art are representative of a wide variety of poets, novelists, painters ranging from Whistler, Van Gogh, Gauguin, Mondrain, Klee, Braque, and Picasso to Wordsworth, Browning, Arnold, Carlyle, Tolstoy, Joyce and Eliot. Interviews with thirty contemporary Canadian artists regarding the nature and purpose of art reveal a remarkable consistency among themselves and with their predecessors. A sampling of these interviews follows.

Irving Layton, a poet, describes the artist as providing an experience--his art--which produces in the perceiver an awareness of its truth, beauty, and harmony, that is, its aesthetic qualities, as distinct from conceptual and intellectual content alone. Art should demonstrate and celebrate the wonder and mystery of life.

Jack Bush, a painter, states that the purpose of painting, for him, is to provide pleasure and joy, or to upset and disconcert. He hopes that his work will open up new experiences to people and enable them to enjoy their life more with a richer appreciation of its complexity and beauty. His "message", if he has one, is simply the production of good paintings.

Jack Chambers wants his work to help people speculate more imaginatively about the possibilities in their life and in the world around them. His "message" is simply that life should be lived at its best and its deepest. The role of the artist is to share his glimpses of reality with the perceiver so that he can benefit from the artist's struggle, the artist's delight, the artist's victories.

W. O. Mitchell, a novelist and playwright, describes the artist as an illusionist, a magician, who alternately reveals and hides certain delights and mysteries about human nature and about the world generally. The artist invites the reader on a process of discovery and exploration to discover his own truths through the efforts of the artist. The result should always be life-affirming and life-enhancing and this can be accomplished by the sheer strength of beauty, power and harmony of artistic excellence.

Jack Shadbolt sees art as essentially metaphoric, employing imagery, symbols, myths and metaphor to convey a larger reality and to link man with the larger universe. Art is a way of creating order out of chaos, a way of deriving meaning from confusion.

> Art is a structuring of possible ways to relate things. Towards this, the artist consumes everything in his path--knowledge, values, tradition, technique, influence, engagement, popular culture, economic survival, professionalism... no ingredient is trivial in his commitment to growth synthesis. He is faced with a devastatingly vast exposure and his only capacity to parlay out on the viable to the unpredictable will

> give him the confidence that will emanate from his work as a sense of original discovery. I would like to feel that my attempt to uncover this process of synthesis from my cycle will alert the reader's mind to his own form-seeking experience.[4]

Like their predecessors, Canadian artists place a high value on the experience of art, recognizing its power to shape perceptions, increase awareness, develop purpose and meaning, create insight, and facilitate communication. The honesty, integrity and authenticity which the artist puts into his work stimulate identical qualities in the mind, heart and soul of the perceiver.

To the questions, what does art teach, what is the effect of art, what is the nature of the aesthetic experience, what do we learn from art, the answer is the same: art teaches itself, art communicates art. The message of art is art. Though this may sound cryptic and evasive it is the only possible answer. Art involves us in an experience which we call aesthetic, which is made up of all the elements, characteristics, qualities and dynamics of the work of art which, when they come together successfully, convey a special kind of experience. John Dewey attempted to describe this experience, relating it directly to his theory of human development.

Art as Experience

In Art as Experience, Dewey describes the aesthetic experience as a special mode of instruction or teaching, different from what is normally regarded as education. He laments the inability to appreciate the kind of learning which can occur through the arts and he believes that this bias is at the root of most misconceptions about the nature of learning.

> It is by way of communication that art becomes the incomparable organ of instruction, but the way is so remote from that usually associated with the idea of education, it is a way that lifts art so far above what we are accustomed to think of as instruction, that we are repelled by any suggestion of teaching and learning in connection with art. But our revolt is in fact a reflection upon education that proceeds by me methods so literal as to exclude the imagination and one not touching the desires and emotions of men.[5]

Dewey distinguishes between things which are experiences in a superficial and disjointed way and things which are experienced in such a way as to compose "an experience". "An experience" is distinct from "raw" experience because of its intensity, its form and order, its completeness, its rhythm. It has a certain dynamic organization which takes time to develop: it begins, grows and matures. It represents and creates an organization of energies which makes the experience memorable and meaningful. Dewey builds his theory of aesthetics on the recognition that such unified and complete experiences have traits which, when raised to a higher degree of intensity and consistency, can form the basis of art. Any authentic, vital experience is one which is "...the fulfillment of an organism in its struggles and achievements in the world of things, it is art in germ. Even in its rudimentary form, it contains the promise of that delightful perception which is aesthetic experience."[6] Art is the purest form of experience because it unites the individual with his environment, giving him an experience of total reality for that moment.

It is the purpose of art to

> ...elicit and accentuate this quality of being a whole and of belonging to the larger, all-inclusive whole which is the universe in which we live...Somehow, the work of art operates to deepen and to raise to greater clarity that sense of an enveloping, undefined whole that accompanies every normal experience. This whole is then felt as an expansion of ourselves.[7]

For Dewey, art is a special mode of knowing; it instructs man through involving him in the wide range of aesthetic qualities for which man has an affinity and an appetite; unfortunately, most of contemporary education does not satisfy that appetite.

Elements of the Aesthetic Experience

From the comments of artists upon art and from philosophical discussion of the purpose and function of the arts, certain elements can be identified which must be present if an experience is to be called aesthetic. Or, to put it another way, if learning is to be an "experience", in Dewey's sense, it must be:

(1) Self-rewarding, self-contained, immediate: the learning experience must be valued in and for itself and must have intrinsic value as well as deferred benefit.

(2) Total, coherent, complete: the learning experience must convey a sense of form, development, unity and completeness. This unity should be experienced, ideally, as a revelation, as an intense insight.

(3) Metaphoric: the learning experience should make use of myth, metaphor and symbol in order to stimulate those seldom used and seldom recognized wellsprings of human motivation. The method should be oblique and indirect rather than didactic and direct.

(4) Involving: the learning experience must require the active involvement of the learner and his participation must be seen as essential to complete the process initiated by the teacher. He must

become "a creative partner." It must allow for the creative expression of the learner, involving him in a process of discovery rather than a process of instruction.

(5) Sacred: the learning experience must enhance the quality of the learner's life and produce a sense of something very special. In this way it will inspire in the learner a desire to repeat the experience so that he can again enjoy the mystery and the delight; in other words it must be seen as a "peak experience" which he seeks to have again.

(6) Non-discursive: the learning experience must be non-discursive rather than discursive, producing a kind of learning which cannot be duplicated in other terms and cannot be accomplished through rational or logical means. It must communicate percepts rather than concepts and stimulate intuitive awareness rather than produce logical constructs.

(7) Vital: the learning experience must result in the creation, rather than the depletion of energy and vitality.

The qualities and characteristics just listed are those which distinguish learning of the aesthetic kind as distinct from other kinds of learning. To the degree that educators wish to achieve these objectives they will create learning experiences which include all or some of the features identified.

It is true of adult education as it is true of all education that our preoccupation is with cognitive learning, with skills of analysis and reasoning. If education is to be balanced, more attention must be given to those learning experiences which are addressed to man's affective domain, which stimulate his aesthetic sensibilities and which recognize his desire to "undergo" as well as "do" art.

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The Relationship between Roles of Farm Wives and Patterns of Educational Participation

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Adult educators have long been interested in describing patterns of educational participation and identifying factors that enhance as well as limit an adult's continuing efforts to learn. Rural women have been identified as an important component of the adult population with unique and, perhaps, unmet educational needs (Clarenback, 1977). The focus of this study is one group of rural women--farm wives. Because of their position in a unique family structure, the literature suggests that farm women may experience "role overload." It does not speak, however, to the association between these extensive role responsibilities and needs, interests, and abilities to participate in educational activities.

The purposes of this study are to describe the extent of the farm wife's role involvement and her patterns of educational participation. The research question posed is:

> What is the relationship between the extent of the farm wife's role involvement and the extent of her educational participation, including self-planned learning?

It is hoped that this study will have theoretical, methodological, and practical outcomes of interest to adult educators. The research question builds on and contributes new information useful in further theory development in participation research. This study poses a methodological question, i.e., does the self-report research instrument asking subjects to recall specific learning activities incorporate self-planned components of an adult's total efforts to learn? Results of the study should also assist adult educators in rural areas to better link educational resources with the learning needs of rural women.

Review of Literature

While early studies of educational participation described participants and non-participants in specific institutional programs, more recent studies have focused on participation from the learner's point of view. In this study, educational participation is defined as the deliberate activities of an adult, either alone or in groups, to increase skills, knowledge, or sensitivities (Houle, 1972).

Few factors associated with the extent of educational participation have been identified in studies utilizing Houle's definition. In studies using self-report questionnaires (Litchfield, 1965 and others), amount of formal education was most consistently associated with extent of educational participation. Most studies using Tough's (1971) interview schedule have included small samples and given limited attention to identification of factors associated with an adult's total efforts to learn. Several studies, however, have identified age, sex, amount of education, income, social class, occupation, and community involvement as associated with self-planned learning (Tough, 1978).

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In this study, three broad social role categories as delineated by Havighurst (1973) provide a framework for consideration of the farm wife's role involvement. These role categories are: family, occupation, and community. Roles are defined as the actual behaviors associated with a particular position in a social organization (Nye, 1976).

Role analysis has been used extensively as a basis for structure/function studies of American families. Studies of the farm family suggest a unique family structure in terms of the differentiation of family and occupational roles between husband and wife. Due to the proximity of farm and home, farm wives not only perform roles associated with the home, socialization and care of children, maintenance of social ties with kin and friends, but also perform occupational roles in relation to the farm enterprise (Capener, 1976; Kohl, 1976; Wilkening and Bharadwa, 1967 and 1968). Studies have not delineated the differences that exist between husband and wife in community role involvement, however.

Instrumentation

Two measuring instruments were used to obtain data regarding the learning efforts of farm women. The Abbreviated Leisure Activities Survey (Litchfield, 1968) was used to obtain a total educational participation score (EPS). This instrument, which listed 21 educational activities, asked subjects to recall how often they had been involved in these activities during the past year. Coolican's (1973) Interview Schedule was selected to obtain a second measure of an individual's total educational activity. This interview outline, a revised form of Tough's (1971) schedule, was designed to help subjects recall all of their efforts to learn during the past year as well as gather basic data about these learning projects. In this study, learning projects were included if they were at least one hour in length.

Instruments were designed to obtain measures of family, occupational, and community role involvement. The extent of the farm wife's involvement in family as well as farm roles was measured using a family and farm role enactment scale derived from Nye's (1976) questionnaire and Wilkening's (1978) instrument designed for farm families. Six family and farm sub-role areas were delineated using Nye's framework, i.e., tasks were identified in relation to the household, family recreation, kinship, child socialization, child care, and the operation of the farm. For each sub-role area, four to six specific tasks were listed and subjects were asked to indicate "who does the task" on a Likert-like scale of 1-5. Role enactment scores were computed and subjects were classified in three role enactment types: husband dominates, share roles, and wife dominates.

The extent of the respondent's involvement in community roles was obtained using the social participation index as described by Wilkening (1953 and 1958). This index provided a measure of the subject's membership, leadership, and extent of participation in 21 community groups and organizations.

The demographic questions included in this study included four questions regarding the extent of involvement of both husband and wife in non-farm work.

A pilot study was conducted with 24 farm wives to determine whether the instruments included clear instructions, whether terms were understandable, and whether farm wives felt the questions provided a complete picture of their activities. In addition, a reliability test was computed with instruments used to obtain measures of the independent variables. The questionnaire items were modified using pilot study data. Tests indicated that the instruments were sufficiently reliable to proceed with the study.

Methodology

A random sample of 400 farm wives--200 in each of two counties--was drawn for this study. The two agricultural counties included farms varying in size, gross farm income, and production of agricultural commodities. County atlases were available that included an up-to-date list of farm operators and their addresses from which a random sample of farm families could be drawn. Farm families were defined as those in which the husband and wife were both living on the farm, they were full or part-time farm operators (either owners or tenants), and the farm was at least 50 acres in size.

There were two data collection phases in this study. During the first phase, a self-report questionnaire was mailed to the random sample of 400 farm wives to obtain measures of the independent variables, extent of educational participation, and selected demographic variables. A response rate of 73 percent was obtained, i.e., 224 farm wives completed useable questionnaires.

A test to determine the internal consistency of instruments comprising the questionnaire was completed with data obtained from the total sample (Cronbach, 1951). The findings indicated that there was homogeneity among the items for each of the instruments with respect to the trait being measured as alphas were .74 for the social participation index, .92 for the family and farm role enactment scale, and .83 for the Abbreviated Leisure Activities Survey.

From the questionnaire respondents, 20 farm women were selected to participate in the second data collection phase. The educational participation score was used to identify farm women who would be interviewed. Ten women from each end of the distribution of these scores, i.e., ten subjects with the lowest and ten with the highest educational participation scores, were interviewed. Thus, there was one group of "low participators" and another of "high participators".

Computer programs from the Statistical Package for the Social Sciences were used to prepare frequency distributions, and statistical tests including t-tests, chi-square, and analysis of variance. A .05 level of significance was selected to decide whether differences were due to chance alone.

Description of the Sample

The typical farm wife in this study was 42 years of age, had completed high school, had been married 21 years, and had 3.79 children--2.2 children were living at home and 1.5 had now moved away. Three-fourths of the farm wives indicated that farming was a full-time activity in their family.

There was great variability relative to size of farm on which subjects resided with about one-half of the farms between 100 and 300 acres and nearly 40 percent being 300 acres and larger. Farm families appeared to have gross farm incomes close to or slightly higher than the state average. In addition, about three-fifths of the families reported non-farm incomes of $500 or more per year. In about 80 percent of the families, persons including relatives, adolescent children, and hired persons assisted with farm labor.

Analysis of the family and farm role enactment scores indicated that in over one-half of the families, wives dominated in four of the six sub-role areas, i.e., household, child care, kinship, and child socialization tasks. The recreation role was shared in a majority of the families. Farm families were most variable in tasks associated with the operation of the farm enterprise. Husbands dominated in 45 percent of the families in this role area, while the role was shared in 47 percent of the families and women dominated in 8 percent of the families. Analysis of the total family and farm role enactment scores indicated that in nearly 55 percent of the families, roles were shared while in 45 percent the wives dominated in this role category.

About one-third of the farm women were employed in non-farm jobs with only 10 percent working 40 or more hours per week. Further analysis of the data found that in over half the families, either one or both spouses were employed in non-farm work.

The average farm wife was a member of a church as well as 2 or 3 additional rural organizations--most frequently farm organizations, the school, and Agricultural Extension Service programs. She attended meetings occassionally in 1 or 2 organizations, attended meetings regularly in 2 organizations, and was typically a leader in at least one of the organizations.

Factors Associated with the Educational Participation of Farm Women

Using a sub-group of 35 subjects whose total educational participation scores were one standard deviation below the mean, and a second group of 36 subjects scoring one standard deviation above the total sample mean, factors associated with the extent of educational participation were identified. There were significant associations with level of education (p=.004), number of years married (p=.036), number of children living at home (p=.030), and assistance with farm labor (p=.032). There was also a significant association with gross farm income (p=.046). This factor was found to be associated with level of education, so was not included in further analysis of the data.

Learning Efforts of Farm Wives Using Two Measures of Educational Participation

There was a significant difference between high and low participation groups in the mean number of learning projects per person (p=.031). Low participators had a mean of 5.4 projects per person while the high participators had a mean of 8.3 projects per person. The range in number of projects for low participators was 3-8 and for high participators was 4-15.

There was also a significant difference between groups in the amount of time individuals spent traveling and arranging for learning (p=.028), in learning efforts (p=.000), and in total learning time (p=.000). There was no significant difference, however, in the time subjects in each group spent deciding and planning their learning.

It appeared that low participators more frequently limited their learning efforts to projects associated with the farm and family. They also seemed to be more dependent on individuals, especially their husbands, children, friends, and experts who came to their homes, for assistance in planning their learning efforts and in providing the information wanted. Both groups reported a low proportion of self-planned learning (45-52 percent of their total projects) when compared with other populations of adult learners. High participators more frequently moved beyond the immediate family and farm interests and resources for learning topics, assistance in planning their learning efforts, and in securing subject matter information. They took advantage of community resources in planning and resourcing their learning efforts.

Relationship Between Roles and Educational Participation

Using questionnaire data, a significant relationship was found between extent of educational participation and community role involvement (p=.001), but no association with family and occupational roles. Consistent findings were obtained with interview data, as well. Although the relationship was not statistically significant, there tended to be an association between self-planned learning and community role involvement (r = .40). The data also suggested that educational activity tended to be higher when women were less involved in farm tasks and when more involved in non-farm work.

Other findings: Self-planned Learning

Analysis of self-planned learning projects found that farm women were interested in receiving more assistance with these projects. The types of assistance frequently requested were obtaining resources, deciding what learning activities would help them gain the knowledge or skill desired, and evaluating their learning progress. It also appeared to the researcher that there was some need for assistance in identifying learning goals.

Women indicated that their major obstacles in learning were lack of energy and commitments to the family. They wanted to attend educational activities with their husbands but also indicated that their husband's disapproval of their involvement in educational activities prevented them from learning more.

Summary and Implications

The data suggest that extent of total educational participation can be measured using both self-report questionnaires and the interview approach. The self-report questionnaire used in this study appeared to incorporate self-planned learning efforts.

Farm women with more involvement in the community may have access to educational resources--for stimulating and planning learning projects as well as in providing the resources needed. Adult educators should consider additional approaches of linking farm women with educational resources. The rural church may be important in this regard. In addition, farm women are asking for counseling and guidance in their learning efforts.

It appears that involvement in family and occupational roles may be both a limitation and resource in the farm wife's efforts to learn. Perhaps more attention should be given to the family as a learning unit as well as learning center. In addition farm women should receive more recognition as major contributors in agricultural production. Adult educators, farm organizations, and families should encourage and facilitate the participation of farm women in educational activities related to the farm enterprise.

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Development and Assessment of an Action Research Paradigm Implemented with Adult Learners

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CONTEXTE ET OBJECTIFS

Plusieurs bilans récents[1] portant sur le fonctionnement des universités au Québec, en particulier sur l'exercice de leur fonction sociale, signalent l'importance pour celles-ci de s'engager davantage auprès de collectivités de citoyens distantes des communautés universitaires, autant dans leurs interventions de formation que dans leurs interventions de recherche. Cette démocratisation de la "mission recherche" à l'université peut s'entendre de trois façons: rendre plus accessibles les résultats des recherches déjà effectuées, privilégier comme objet de recherche les problèmes rencontrés par les groupes qui travaillent à leur promotion collective, ou encore, dans le contexte de cette étude, intégrer ces mêmes groupes comme partenaires actifs dans la recherche.

L'objet général de notre étude est de proposer un modèle de recherche-action qui permette à des équipes d'universitaires de travailler conjointement avec des groupes extérieurs à l'université, d'allier dans ce travail la pensée théorique à l'intervention, et d'aider ces collectivités à prendre des décisions éclairées relativement aux secteurs de leur vie collective qu'ils ont ainsi analysés.

LES LIMITES DE LA METHODE EXPERIMENTALE

La plupart des chercheurs qui entreprennent une recherche sur le terrain dans un domaine social ou psycho-social se croient obligés, pour que leur démarche soit reconnue comme scientifique, de déterminer un plan expérimental ou, à tout le moins, de justifier de façon rigoureuse les accommodements que la situation hors-laboratoire les oblige à apporter à ce plan de recherche privilégié. Il est encore rare cependant que l'on examine de façon critique les limites du plan expérimental. On peut mieux comprendre les particularités et les exigences du modèle expérimental si on se réfère au principal domaine d'étude où ce plan de recherche a d'abord été utilisé et développé depuis la fin du siècle dernier, soit la recherche en agriculture.

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Deux caractéristiques dans ce domaine de recherche permettent de comprendre la fécondité qu'a permis l'emploi du paradigme expérimental. Une première caractéristique est très générale, elle a trait à la conception que les chercheurs y avaient de l'actiivté scientifique: la démarche scientifique y vise à déterminer la cause d'un effet observé, cette cause devenant manifeste lorsque l'action posée par le chercheur est suivie de l'effet qu'il a prédit. La deuxième caractéristique tient au contexte particulier de la recherche en agriculture: les entités observées peuvent être nombreuses tout en demeurant homogènes dans leurs caractéristiques, de plus ces caractéristiques sont relativement peu nombreuses et se prêtent à la manipulation. Si l'on réduit la méthode expérimentale à ses traits essentiels, il s'agit d'abord de déterminer des unités expérimentales homogènes qui seront des lopins de terre en agriculture, des personnes en recherche psychologique, des classes d'une école en éducation ou les quartiers d'une ville en recherche sociale. On assigne ensuite au hasard ces unités au groupe qui subira le traitement expérimental, pour pouvoir ensuite le comparer en termes d'effet au groupe qui n'aura pas subi le traitement. Puisqu'il est devenu évident que les recherches sociales sur le terrain ne permettent pas habituellement d'assigner de façon aléatoire des unités expérimentales à des traitements, on a élaboré des méthodes de plus en plus sophistiquées qui visent à compenser cette absence de possibilité de contrôle.[2]

Cependant, que ce soit par la méthode du plan expérimental ou celle du plan quasi-expérimental, le chercheur en sciences sociales se donne ainsi un cadre de travail qui vise uniquement à déterminer les effets d'un traitement. Si la recherche sur le terrain vise à comprendre des processus ou des conditions antécédentes qui sont perçus comme des problèmes à résoudre par une collectivité, et ceci sans que le chercheur à lui seul puisse manipuler ces conditions, il n'est plus approprié d'employer le cadre de recherche expérimental, non plus que le plan quasi-expérimental. D'autres méthodes de recherche déjà employées en anthropologie culturelle ou en recherche évaluative semblent plus appropriées même si ces méthodologies n'atteignent pas encore le degré de netteté et de sophistication du paradigme expérimental.

LES BALISES D'UNE METHODE APPROPRIEE

Dans une monographie qui examine des solutions de rechange au modèle expérimental. Patton[3] affirme qu'une recherche sur le terrain qui se veut de qualité doit développer des méthodes qui assurent que l'information colligée soit appropriée et pertinente au processus social examiné, aux questions des organismes qui s'intéressent à ce processus ainsi qu'aux participants et aux décideurs dans ce processus. Plus récemment, suite aux critiques de Cronbach[4] en rapport avec la recherche sociale ou psycho-sociale sur le terrain, Guba[5] suggère qu'une recherche sur le terrain, même si elle peut porter attention à toute variable qu'elle peut contrôler, doit avant tout assurer la validité externe de la recherche, et ce en décrivant les activités les plus particulières et en tenant compte de l'éventail des facteurs locaux.

Les opérations d'une recherche inductive en promotion collective doivent donc suivre un plan flexible, particulièrement en ce qui a trait aux moyens employés pour colliger des données de façon systématique. Le besoin d'une telle flexibilité tient au postulat suivant: la validité externe et l'exhaustivité des connaissances acquises, relativement aux paramètres pertinents à la situation sociale étudiée, découleront surtout d'interactions du chercheur, avec les personnes impliquées dans la situation étudiée ainsi qu'avec l'environnement particulier à cette situation.. Ainsi, avant de choisir des instruments de mesure ou avant d'en construire de nouveaux, le chercheur doit acquérir une familiarité avec les caractéristiques particulières de la situation étudiée et il doit connaitre ce que l'ensemble des participants dans la situation veulent atteindre.

Dans ses débuts, un projet de recherche en promotion collective doit donc établir, avec les personnes qui ont des responsabilités dans le processus social organisé qu'on examine, les intentions, les problèmes, les procédures, les catégories de personnes et de phénomènes qui seront étudiés de façon particulière. Ces choix ne peuvent être faits qu'après avoir apprécié les préoccupations des personnes concernées et après avoir établi les questions les plus importantes que se posent les personnes qui sont le plus directement impliquées dans la situation sociale examinée.

Durant le processus de la recherche, des occasions doivent être suscitées où les personnes qui auront à faire des choix suite à la recherche effectuée, peuvent obtenir une vision de plus en plus claire de la situation étudiée. La recherche doit aider ces personnes à clarifier leurs intuitions face aux enjeux de la situation et à rendre plus explicite leur propre cadre de référence. A mesure que la recherche avance, la nature de ses opérations est communiquée: de cette manière, les activités de recherche sont soumises à examen ce qui ajoute à leur pertinence potentielle.

UN CHEMINEMENT FONCTIONNEL

Il est certain que divers cheminements fonctionnels de recherche peuvent être adoptés pour encadrer une recherche-action inductive qui vise un horizon d'éducation permanente; les paragraphes qui suivent décrivent les principales étapes d'un cheminement qui est actuellement expérimenté dans deux projets de recherche. Suite à ce qui a été dit précédemment, les diverses phases du cheminement doivent rencontrer certaines exigences: 1o employer des moyens permettant une compréhension d'une variété de phénomènes en termes d'un nombre limité de concepts. 2o permettre à des collectivités de prendre des décisions éclairées dans le domaine du problème analysé. Selon la spécificité du projet de recherche, les étapes qui suivent varient par leurs reprises, leurs boucles et le temps qui leur est accordé.

a) Explicitation entre le chercheur universitaire et le groupe extérieur à l'université des postulats épistémologiques (conception de ce qu'est le processus de connaissance et le processus de recherche) et éthiques (risques et avantages de l'approche méthodologique choisie) qui sous-tendent la recherche entreprise.

b) Détermination et description, par le groupe extérieur à l'université, des situations problématiques où les individus n'arrivent pas à être producteurs et participants actifs devant les choix d'action possible.

c) A partir d'une esquisse préparée par le responsable de recherche, finalisation par le groupe concerné d'un ensemble pondéré de critères qui pourront guider leur choix entre diverses voies d'action possible.

d) Définition des critères retenus, par des indicateurs observables sur le terrain

e) Désignation de standards pour chacun des critères, par le groupe concerné en collaboration avec le responsable de recherche. Selon le degré d'atteinte éventuelle des standards, détermination d'un éventail de choix d'actions possibles.

f) Choix d'instruments pour la collecte des données pertinentes aux indicateurs et ceci selon un souci d'économie de moyens.

g) Collecte des données, selon un mode valide et fiable pour des chercheurs non-impliqués.

h) Analyse des données colligées, en regard des indicateurs de chaque critère, par le groupe impliqué, sous la coordination du responsable de recherche qui assure la transférabilité des analyses.

i) Sélection d'un type d'intervention à privilégier dans l'environnement en fonction du niveau d'atteinte des standards.

CRITERES D'EVALUATION DES PROJETS DE RECHERCHE

Pusique les projets de recherche d'un tel modèle visent autant une finalité scientifique (i.e. description et explication du plus grand nombre possible de faits empiriques à partir d'un minimum d'hypothèses ou d'axiomes) qu'une finalité pratique (i.e. support décisionnel aux collectivités où se déroule la recherche ainsi qu'aux chercheurs de l'université) il faut que leur appréciation soit fondée autant à la fois sur des critères scientifiques que sur des critères pratiques. Un tel ensemble d'effets diférentiels d'un processus de recherche a déjà été élaboré entre autres par des groupes de chercheurs et de praticiens dans le domaine de l'évaluation de programme[6]: ces travaux ont inspiré les énoncés des dix critères qui suivent:

1) Validité interne: les modalités de la recherche ont-elles permis une correspondance étroite entre la situation sociale examinée et l'information recueillie à ce sujet?

2) Validité externe: les modalités de la recherche ont-elles permis d'inventorier un échantillon de phénomènes qui supporte des recommandations d'actions futures?

3) Fidélité: les précautions prises lors des modalités de la recherche assurent-elles une stabilité dans les résultats colligés?

4) Objectivité: y a-t-il eu des moyens pris pour savoir si différents témoins peuvent s'entendre sur le sens à donner aux résultats colligés?

5) Pertinence: les informations recueillies et analysées étaient-elles spécifiquement reliées aux problèmes ou questions de ceux qui auront à prendre des décisions dans le milieu et à l'université?

6) Importance: y a-t-il moyen de distinguer, dans le rapport de recherche, les informations importantes de celles qui ne sont que secondaires?

7) Exhaustivité: le champ d'information couvert était-il assez large pour permettre au décideur d'avoir une vision d'ensemble de l'objet étudié?

8) Crédibilité: des moyens ont-ils été pris pour que les résultats de la recherche soient crédibles aux yeux de ceux qui devront prendre des décisions, suite à la recherche?

9) Opportunité: l'information recueillie et analysée est-elle arrivée à temps pour éclairer les prises de décision?

10) Diffusion: est-ce que tous ceux qui en ont besoin ont été informés des résultats de la recherche, selon un mode de transmission adapté?

IMPLICATIONS

Ce modèle de recherche inductive, tel qu'il est expérimenté actuellement dans deux projets de recherche, permet d'explorer des moyens par lesquels l'université peut, à la fois, préparer des collectivités à mener des actions et à les analyser tout en comprenant mieux, dans ses disciplines spécialisées, comment la société agit sur elle-même et sur son environnement.

Dans ces projets de recherche, les schèmes de pensée, les modèles explicatifs et les instruments sont tirés de l'observation et de l'analyse des phénomènes apparaissant dans les fonctionnements du milieu social où évolue le groupe impliqué; cette dimension de la recherche à caractère théorique prend plus d'importance lors de la détermination initiale des critères et lors de l'appréciation des critères une fois les données colligées et analysées. Cette dimension théorique est complétée par une dimension de recherche opérationnelle à l'occasion de la détermination d'indicateurs et surtout lors du choix d'actions visant à corriger les incongruences constatées à l'intérieur du secteur qui posait problème au départ.

Ces deux dimensions théorique et pratique de la recherche se trouvent intégrés dans des activités évaluatives qu'exercent tout au cours de la démarche, les personnes du groupe impliqué ainsi que le responsable de la recherche. C'est ainsi que la recherche vise à définir les composantes de l'environnement tel qu'il est et tel qu'il pourrait être, tout en visant à améliorer l'interaction avec cet environnement par une analyse appréciative et un choix d'action pertinente.

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Enrollment Generation through Benefit Segmentation

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INTRODUCTION

Statement of the problem

As the number of youth decreases, educational institutions seek to attract adult learners to their programs without violating principles of adult education paraphrased below:

1. Programs should be designed in response to needs and interests of potential participants (Knowles, 1970, pp. 79-98).
2. Only those objectives congruent with needs and interests of individuals, with goals and resources of an institution, and with its role in improving society are appropriate objectives for program planning (Knowles, 1957, p. 237).

McKinley's review of needs assessment models disclosed that none appeared to consider these three sources of programing objectives. He recommended that "target populations and patterns of individual interests" be identified through market research (1973, p. 72).

Congruency of marketing and adult education

Kotler defined marketing as "a human activity directed at satisfying needs and wants through exchange processes" (1976, p. 5) and the ideal organization as seeking "to sense, serve, and satisfy its markets and publics, and through this make its contribution to the well-being of society" (1975, p. 48). Hence, philosophies of Kotler and Knowles appeared congruent. Both adult marketing and adult education consider program, scheduling, location, institutional services, and promotion as components of the total program offering (Howard, 1977, p. 9; McCarthy, 1978, pp. 39-43).

Benefit segmentation appeared a market research technique congruent with Knowles' principles of adult education. This technique identifies types of adult learners by categorizing them according to their reasons for participation and then identifies the demographic characteristics and program offering preferences of each group. This information suggests effective program offering and promotional strategies for generating enrollments by better satisfying the needs and interests of types of adult learners.

RESEARCH

Data collection procedures

The purpose of this study was to test the applicability of benefit segmentation to enrollment generation by utilizing the

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technique at one educational institution, College of DuPage, Glen Ellyn, Illinois. This public community college is located in a prosperous western suburb of Chicago and attracts employed adults as part-time students.

The course improvement survey was developed to measure program offering preferences, demographic characteristics, and reasons for participation and incorporated Boshier's Education Participation Scale (Note 1). The random sample consisted of 487 students participating in 92 randomly selected courses offered Spring Quarter, 1979. Validity of this instrument was improved through suggestions of a validation jury (Note 2) and those involved in pilot tests at nearby colleges. The consistency of responses of 93 participants in 10 randomly selected courses ranged between .6 to 1.0.

Hypotheses

This study tested the following hypotheses:

HO_1 Each benefit segment cannot be differentiated by its motivational orientations.

HO_2 Each benefit segment cannot be significantly ($\alpha \leq .10$) differentiated by a program offering preference.

HO_3 Each benefit segment cannot be significantly ($\alpha \leq .10$) differentiated by a demographic characteristic.

HO_4 Membership in each benefit segment cannot be predicted with at least 70 percent accuracy by demographic characteristics.

Methodology and results

Formation of benefit segments assessed hypothesis one. The first step was identifying motivational orientations through principal-component factor analysis of reasons for participation. A reason may be highly ($\geq .40$) correlated with more than one orientation, oblique rotation not forcing orientations to be uncorrelated. In this study, the six orientations reported by Darkenwald (1977, p. 1) as common to many factor analytic studies were named Social, Learning, Altruism, Improvement, Compliance, and Advancement to reflect similarity among correlated reasons for participation. As shown in Exhibit 1, Academic, Leisure, and Change orientations were also identified.

The second step was grouping participants into benefit segments according to their motivational orientation profiles. Through Ward's hierarchical cluster analysis (Note 3), participants most similar in their profiles were sequentially fused by minimizing incremental error variance. The five cluster solution was selected, fewer clusters having much more heterogeneous benefit segments, and more clusters increasing the complexity of the solution. These five benefit segments represented from 12 to 41 percent of the students and were named to reflect orientations influencing them more than 75 percent of the respondents. (See Exhibit 2).

The Kolmogorov-Smirnov goodness-of-fit test assessed hypothesis two. As shown in Exhibit 2, Ambivalent learners seemed interested in credit and counseling; Social/Improvement learners, in studying hard and in social activities; Learning/Career learners, in short business courses; Leisure/Status learners, in non-credit evening programs in art and physical education; and Submissive learners, in medical and speech courses.

EXHIBIT 1

DESCRIPTION OF THE NINE MOTIVATIONAL ORIENTATIONS

Motivational Orientation	Description
Social	Desire for social relationships, some variety and personal insight
Academic	Desire to meet formal academic requirements, some professional advancement
Learning	Desire for the inherent satisfaction of learning
Altruism	Desire to prepare to serve mankind, some personal insight and preparation for other courses
Improvement	Desire for improvement in an unpleasant social situation
Compliance	Desire to comply with the expectations of others
Advancement	Desire for career or social status
Leisure	Desire for relief from routine
Change	Desire for a long-term change

The Kolmogorov-Smirnov test also assessed hypothesis three. As reported in Exhibit 2. Ambivalent learners tended to work full time; Leisure/Status learners, to be over 21 years old; and Submissive learners, to live in the county seat, Wheaton, and work part-time in non-business jobs.

Discriminant analysis tested hypothesis four. To summarize, Ambivalent learners tended to commute far to work; Social/Improvement learners, to be 18 to 21 years old; Learning/Career learners, to commute from the west side of the county; Leisure/Status learners, to be women over 20 years old; and Submissive learners, to work nearby in medicine. As shown in Exhibit 2, all except the Ambivalent learners were predicted with at least 70 percent accuracy from their demographic characteristics.

IMPLICATIONS

Program offering and promotional strategies

These results suggested separate program offering and promotional strategies for each benefit segment at College of DuPage. For example, medical programs in congruence with expectations of

EXHIBIT 2

CHARACTERISTICS OF TYPES OF ADULT LEARNERS

Learner Type	Size	Orientation	Demographics	Accuracy[1]	Program Offering Preferences
Ambivalent	41%	None	Works ≥ 24 hours/week*	65%	1-2 hour sessions; Mon. 10-11, Wed. 8-11, Fri. 8-11 a.m.; ≥ 2 hours homework; ≤ 24 classmates; credit; ≥ 4 total credits; A.A.S. degree or transfer credit; many subjects & many complaints
Social/ Improvement	20%	Improvement, Social & Altruism	18-21 years old	72%	4-5 sessions/week; ≥ 5 hours homework; many subjects & complaints
Learning/ Career	14%	Learning & Advancement	Not 22-29 years old; long commute from west	72%	Not 1½ hour sessions, business, few complaints
Leisure/ Status	13%	Leisure & Advancement	Lives south or far; ≥ 21 years old*; women; short commute	75%	3, not 1 hours sessions; 1, not 5 sessions/ week; Mon.-Thurs. 7-10 p.m.; ≤ 2 hours homework; ≤ 10 classmates; non-credit; ≤ 4 total credits; not A.A.S. degree or transfer credit; art & P.E.; few complaints; unknown career goal
Submissive	12%	Compliance	Not 21 or 30-39 years old; non-business*; works ≤ 30 hours/week*; Wheaton*; medicine	71%	Not 9 week term; ≤ 35 classmates; medicine & speech; few complaints

*Indicates demographic characteristics identified through the Kolmogorov-Smirnov test.

[1] Percent accuracy of membership prediction through discriminating demographic characteristics.

local medical employers might be promoted by specialized mailings to part-time medical workers of the appropriate ages who live in the county seat. These people constitute the Submissive benefit segment. Non-credit evening programs in art and physical education might be offered through suburban newspapers and women clubs as a prestigious "night out" for adult women, the Leisure/Status segment. Business subjects might be offered through individualized instruction, in classes on commuter trains, or on the radio during "rush hours" by promotions directed to commuters, the Learning/Career benefit segment. Social activities and discussions of personal and societal problems might be offered through specialized mailings and the college radio station to young adults, the Social/Improvement benefit segment. Ambivalent learners might be motivated to continue to pursue their educational goals through career and academic counseling and by addressing their complaints.

Implications for adult education

Although these strategies are not generalizable beyond College of DuPage, the technique of benefit segmentation might be effective in increasing enrollment in other educational settings. Further research is needed to test the applicability of benefit segmentation to other audiences and purposes. For example, latent educational needs of types of adult learners not presently being served might be assessed through benefit segmentation. Other purposes of benefit segmentation might be increasing learner satisfaction, learning effectiveness, and homogeneity of classes. The technique might also help decision makers select which benefit segments are congruent with goals and resources of their institution and with its role in improving society. Strategies of selected benefit segments could then be implemented.

In addition to suggesting strategies for increasing enrollment at College of DuPage, this study substantiated findings of other factor analytic studies, tested Houle's typology (1961, pp. 15-16) of the three types of adult learners, and developed a model for designing program and promotional strategies in congruence with needs and interests of individuals, with goals and recources of an institution, and with its role in improving society.

LIST OF NOTES

[1] Education Participation Scale is available from: Dr. Roger W. Boshier, Adult Education Research Centre, University of British Columbia, 5760 Toronto Road, Vancouver, British Columbia, Canada V6T 1L2.

[2] The validation jury consisted of Roger W. Boshier, University of British Columbia; Robert D. Boyd, University of Wisconsin-Madison; Harlan G. Copeland, University of Minnesota; Burton W. Kreitlow, University of Wisconsin-Madison; and Joan Wright, North Carolina State University.

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The Impact of Continuing Education on Nursing Practice

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INTRODUCTION

Improved patient care is believed to be the ultimate goal of continuing nursing education. The American Nurses Association defines continuing education as:

> "...Planned learning experiences beyond a basic nursing education program. These experiences are designed to promote the development of knowledge, skills, and attitudes for the enhancement of nursing practice, thus improving health care to the public."

The relationship between a continuing education program and changed professional practice of the nurse participant and, in turn, the results of such change via patient outcomes are areas in which many questions exist and little research has been undertaken. Concern that such data are vitally needed is seen in continuing nursing education literature, current trends and issues in nursing, and with the few research studies which have been done. These studies to date have presented little data which support the position that participation in continuing education has any impact upon professional practice. Despite this, ever increasing emphasis and reliance is being placed on continuing education.

The flurry of activities relative to continuing education is indicative of its current importance. In the past decade continuing education programming has rapidly proliferated. There is a trend to mandate continuing education as a requirement for relicensure. The most frequently cited reasons for having continuing education are the knowledge explosion, rapid change and advancement in technology and increased need for accountability on the part of health practitioners.

With such increased attention and activity in continuing education it appears timely that additional research be conducted to provide better assessment of the impact of continuing education offerings on both nurse participants and the recipients of care. The purpose of this study was to examine the extent of relationship between participation in a program of continuing nursing education and change in professional practice by nurse participants.

In review, literature on the evaluation of continuing education can be found which includes both proponents and opponents of the concept of evalua-

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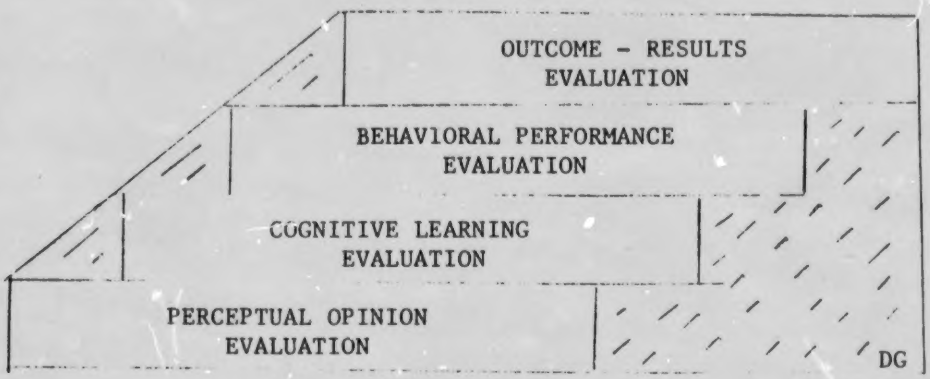
tion in continuing education. Advocates contend that evaluation is essential to best meet learner needs and conduct effective program planning. They identify pragmatic usefulness to learners, program faculty, administrators, funding agencies, and credentialing boards. Others suggest that the time required, expense involved, insufficient content, and lack of appropriate methodology are severe constraints to be dealt with in evaluation of continuing education. I believe that evaluation is a vital and essential component of the continuing education process. The special nature of continuing education with its many non-conventional aspects, however, does demand evaluation methodology of unique design appropriate to accomodate the continuing education process.

THEORETICAL FRAMEWORK

Based upon prior work of Kirkpatrick (1967), Anderson (1973), Dixon (1977) and Mitsunga-Shores (1977), a four tier model of the continuing education evaluation process was designed to provide the theoretical framework for this study.


OUTCOME - RESULTS EVALUATION
BEHAVIORAL PERFORMANCE EVALUATION
COGNITIVE LEARNING EVALUATION
PERCEPTUAL OPINION EVALUATION
DG

CONTINUING EDUCATION EVALUATION MODEL

Level One relates to participants' perception and opinions about the course; Level Two involves the cognitive learning which occurs; Level Three addresses participants' behavior and changes occurring in behavior in the actual performance settings; Level Four examines the results via patient outcomes, effect on the organization, quality of service etc.

A critique of the research studies of continuing education conducted to date reveal that of the few studies which examined the evaluation aspects, nearly all have focused on the two lower levels. For the few attempting to examine changes in nurse behavior (Level 3) or Patient outcomes (Level 4), findings tend to indicate no significant changes resulting. Level three, nurse performance (behavior) was the selective scope of focus for this evaluation research study.

METHODOLOGY

A quasi-experimental, pre-post control group design was used. Attendance at a two-week (77½ hour) continuing education course entitled "Rehabilitation Through Nursing" served as the independent variable. The performance (behavior) of nurse participants in the care of CVA (Stroke) patients was evaluated. Performance was determined by audit ratings of clinical patient records.

Audit ratings of 94 clinical records were conducted using a 77 item audit rating instrument developed as part of this study. The instrument allowed for rating of 54 nursing assessment functions and 23 nursing care planning functions. The instrument was found to have reliability of 0.80 as well as both internal & external validity.

The format of the audit instrument called for a simple rating of yes-no as to whether or not the assessment or care planning function was documented in the clinical record as having been addressed by the nurse. The category of N/A was provided for indicating any item not relevant due to the patient's condition or level of need. The assessment items were determined to be items of essential data needed to plan & provide appropriate care to a CVA (Stroke) patient. The care planning functions were common nursing practice activities and fell primarily within the scope of independent nursing functions.

From the universe of practicing registered nurses the population for this study consisted of all professional (registered) nurses employed in certified Home Health agencies in Ohio. Sample selection criteria for the experimental group included:

1-) Completed the two-week course entitled "Rehabilitation Through Nursing" sometime between January 1976 and June 1977.

2-) Employed as a professional nurse in a certified home health agency in Ohio at the time of course attendance.

3-) Provided direct initial care to a CVA (Stroke) patient within 1 year prior to course attendance & within 1 year after course attendance.

Criteria for the control group were identical excepting for the fact that they had not participated in continuing education comparable to the "Rehabilitation Through Nursing" course.

Of the 56 nurses from 20 certified home health agencies who attended the course during the 18 month period, 24 became subjects. These 24 were from 10 different agencies. Twenty-three control subjects were drawn from 13 certified home health agencies in Ohio that had not had an employee in attendance at the "Rehabilitation Through Nursing" course during that 18 month period.

The sample were all female, the majority with diploma nursing education and 83 percent were in staff nurse positions. The amount of additional education and type of nursing experience were comparable. The control group was found to be appreciably older and with considerably more experience in home health service. This factor (length of experience in home health) was found to be the only demographic variable of significance in relationship to nurse performance as measured by the audit ratings. Both groups evidenced frequent participation in continuing education but this was not found to be a factor of significance.

Data utilized in this study were primarily of an ex post facto nature since they were gleaned from already existing clinical records. Although available, access to the data became difficult due to confidentiality and sensitivity of the data, human rights, agency policies and record keeping systems. In the essence of time I will not describe for you the complex, multistep process that was required in order to eventually procure the data except to tell you that for the experimental group the last CVA case cared for prior to course attendance and the first CVA case cared for after course completion were those designated for inclusion in the study. The two CVA cases cared for by control subjects were selected by matching the factor of dates care was provided. A total of 94 clinical records, i.e., 2 CVA cases cared for by each of the 47 subjects, were audited. The two cases for each subject provided a pre and post treatment rating.

Data collectors conducted audits of the 94 clinical records using the audit rating instrument described previously. Some important factors in the use of the instrument were that:

1. The audit of a clinical record using this instrument required 15-30 minutes depending on the skill of the auditor and length of the record.
2. Nursing judgment was needed by the auditor in order to use the instrument.
3. Audit was restricted to the identification of nursing practice data and did not provide data about patient condition.

The research questions of this study were:

1. Do nurses who attend a two-week continuing education course entitled "Rehabilitation Through Nursing" change their nursing practice in the care of CVA patients after course attendance?
2. Do nurses who attend the continuing education course engage in different nursing practice in their care of CVA patients from nurses not attending the course?
3. What is the nature of the relationship between nursing audit ratings of the nurse subjects and the demographic variables of age, type of basic nursing preparation, extent of formal education, amount of recent continuing education, years of employment and type of nursing experience?
4. What is the nature of the relationship between the nursing audit ratings of nurse subjects and the time interval in the care of two CVA patients?

FINDINGS

Data were analyzed in accord with four hypotheses. There was failure to reject all of the null hypotheses. It was found that:

> Nurses who attended the two-week continuing education course in rehabilitation nursing did not alter their performance in the care of CVA patients following course attendance and in fact, the mean performance level was unchanged. (See Table 1)
>
> Performance in the care of CVA patients by nurses who attended the course was not significantly different from the performance of nurses not attending the course. Performance ratings for the experimental group, however, were found to be slightly higher than the performance ratings of the control group. (See Table 1)

TABLE 1

AVERAGE AUDIT RATINGS OF
EXPERIMENTAL AND CONTROL GROUPS

	CASE #1			CASE #2		
	A N=54	C N=23	T N=77	A N=54	C N=23	T N=77
EXPERIMENTAL GROUP	46.3%	54.3%	49.3%	45.7%	54.3%	49.3%
CONTROL GROUP	38.9%	47.8%	41.6%	40.7%	45.8%	42.8%

A = Assessment
C = Care Planning
T = Total

> Age, type of basic nursing education, amount of formal and/or continuing education and type of nursing experiences were not found to be factors of significance in performance ratings for the care of CVA patients.
>
> Nurses with more than ten years experience in home health however, were found to have significantly higher performance ratings in the care of CVA patients.
>
> The time interval between Case #1 and Case #2 did not appear to be a factor of significance in performance ratings for care of a CVA patient.

The frequency of completion of each of the 77 performance functions in the care of a CVA patient was descriptively examined. No identifiable patterns of predictable performance could be identified within groups or between groups.

IMPLICATIONS

What are the implications for the findings of this study? Quite literally, the findings seem to suggest that no benefit is to be derived from continuing education and that nurses will practice the same with or without it. Despite the seemingly bleak implications of these findings, let us consider some other perspectives.

The theoretical models of evaluation upon which this study was based are in the formative stages. This study is one of very few that has attempted to examine specifically level three-the evaluation of participant behavior. A definite limitation was the recognized inability to examine any and all levels of evaluation concurrently. The difficulty to date in being able to demonstrate a relationship between continuing education and change in behavior was again evidenced in this study. Possibly there is simply not yet developed expertise in the utilization of the most appropriate research methodology to examine this question.

Twenty-nine percent of the potential experimental subjects could not participate in the study because they had not cared for two CVA patients within the designated time period (one pre and one post course attendance). CVA is the second highest diagnostic category of patients cared for in home health and constitutes nearly one-fifth of all home health visits. This raises questions as to the extent of planning, interest, expectation and commitment to continuing education on the part of both employer and nurse participant.

Numerous studies from the fields of psychology and education as well as empirical experience have repeatedly shown us that it takes vigorous intervention and powerful force to change accustomed behavior. Is it realistic to expect that a brief continuing education experience, even if skill training is included, is enough to prompt lasting change in the practice behavior of the nurse? Given exactly the same setting and set of conditions upon return from a continuing education experience, how much change on the part of the participant can realistically be expected? Are there certain actions which an employer could take that would enhance and facilitate the desired behavioral changes in employees? For instance, would the same findings result if every employer were to assure that each employee be assigned to care for a patient with the primary diagnosis of CVA within six weeks of course completion?... Or that agency performance standards and audit criteria for the care of a CVA patient incorporate the principles taught in the "Rehabilitation Through Nursing" course? Answers to these hypothesized questions can only be speculative but they do raise issues worthy of further research.

Many questions relative to the learner participant can also be raised. What prompted the nurse to enroll in the course? What were her expectations of outcome? To what extent did she consciously and unconsciously attempt to use principles learned in the course? What barriers did she encounter?

Although the findings of this study did not reflect evidence of significant impact due to the continuing education course, it is possible that changes beyond the scope of research measurement did occur. Sometimes the content of continuing education programs may not be actual "new knowledge" but, rather, information that helps one to confirm beliefs, validate observed or experienced events or recall previous learning. This may have occurred in this situation since post treatment performance appeared to remain similar to pre treatment performance.

Findings such as those of this study once again challenge professional continuing educators to demonstrate the effectiveness of continuing education. A reexamination of program planning, curriculum and evaluation methodology is indicated. What are the results of continuing education programs of varying length, content scope, and teaching approaches?

The recent, rapid development of professional continuing education should be viewed with both enthusiasm and critical analysis. The need for continued and increased research of this entire issue is evident.

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Ego-Stage Development in the Older Adult Learner

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INTRODUCTION

The phrase "Older Adult" and the word "Adulthood" occur rarely in the literature of educational research. To date, most educational research has centered on childhood and adolesence and has given a certain concreteness to those terms. During the twentieth century, a demographic shift has occurred which dramatically increased the number of older persons in the United States. A relatively stable birth rate and a higher proportion of people who live longer and remain for a shorter time in the workforce have produced an increasing concern on the part of educators about the implications of this growing segment of the population for education. By the year 2005, when most of the 1940's baby-boom babies will have reached age 60, an estimated 20% of our population will be over 60, and, more importantly, this population will be well educated. Among those entering old age early in this century, only about 10% had completed high school, while over 70% of those entering in the year 2000 will have attained that level and nearly 50% will have college educations (Uhlenberg, 1977). Despite the growth of interest in the human life cycle, little is known about the "stages" of adult life, less is known about the transition from adolescence to adulthood or about middle age, and even less about senescence.

PURPOSE AND SUMMARY OF LITERATURE

This study proposes to apply the schema developed by Erik Erikson to examine and describe the psychosocial characteristics and concerns of older adults. The schema described in Erikson's theory provides a model of human psychosocial development. He postulates that people progress through eight ego stages in which they must confront inner and outer conflicts. Each successive stage brings the individual into more complex activities and interpersonal relationships. He postulates further that each stage follows an "epigenetic" pattern, having its special time of ascendency in which the individual, through the functions of his/her ego, must resolve a binary conflict or crisis, the solution of this "phase specific" crisis will significantly affect the ego's future development.

Erikson also notes that in normal, healthy development of the ego there is not a sharp polarity to the solution of a crisis. A positive solution to a crisis, e.g., Trust as opposed to Mistrust, is composed of a certain residue of the negative vector. But, as Erikson warns (Millon 1967), a chief misunderstanding of his schema is that the positive resolution to a crisis is an "achievement" that is secured once and for all times. Erikson postulates a certain "ratio" between the positive and negative for any given stage which, if the balance is toward the positive, will enable the individual to meet later crises with a better chance for unimpaired development. Omission of the negative components, e.g., Mistrust, takes away those forces which remain the dynamic counterparts of the positive components throughout life. Crises exist as an active dimension of the ego as new crises are met. In this sense, the direction in which an individual resolves each crisis determines how the individual's personality can be characterized; e.g., an individual who *resolved the first stage positively can be characterized as a* "trusting" person.

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Boyd's Implementation

The work of Robert Boyd (1961, 1964, and 1970) adds a dimension to the "phase specific" concept mentioned above. He argues that individuals who have resolved "phase-specific" crises may have "pertinent" concerns for these stages at a later point in their lives. He has found that as individuals encounter phase-specific concerns, they have pertinent concerns for those stages already resolved.

The squares in Figure 1. below represent both a sequence of stages and a gradual development of component parts. In other words, the diagram formalizes a progression through time of a differentiation of parts, thus indicating (a) that each item of the vital personality to be discussed is systematically related to all others, and that they all depend on the proper development in the proper sequence of each item; and (b) that each item exists in some form before "its" decisive and critical time normally arrives. Each of the eight ego stages described by Erikson consists of two different sets of basic alternative attitudes which constitute the positive and negative aspects of the eight socio-psychological crises in ego development.

THE INTERPLAY OF SUCCESSIVE LIFE STAGES

H OLD AGE								Integrity vs. Despair, Disgust: WISDOM
G MATURITY							Generativity vs. Self-Absorption: CARE	
F YOUNG ADULTHOOD						Intimacy vs. Isolation: LOVE		
E ADOLESCENCE					Identity vs. Identity Confusion: FIDELITY			
D SCHOOL AGE				Industry vs. Inferiority COMPETENCE				
C PLAY AGE			Initiative vs. Guilt: PURPOSE					
B EARLY CHILDHOOD		Autonomy vs. Shame, Doubt: WILL						
A INFANCY	Trust vs. Mistrust: HOPE							
	1	2	3	4	5	6	7	8

Figure 1: Erikson's Eight Ego Stages

The purposes of this study will be to determine:

1. the distribution of ego stages and pertinent concerns of the sample population of older adults
2. the variation between and among these ego stages and pertinent concerns with regard to demographic sub-groups of the sample population.

The complete paper reviews the literature of needs assessment, participant motivation and personality development. In this shortened version only a brief look at those sources of information on "stages" will be cited. Kohlberg (1973) developed a model of adult moral development and Lowenthal et al. (1975) wrote about the four stages of life, focusing on the socio-psychological characteristics of adults in pre-transitional stages: high school seniors, young newly-weds, middle-aged parents approaching an "empty-nest" and older adults planning to retire within two or three years. Sheehy (1976) has popularized the predictable crises between 18 and 50 years, and Levinson (1978) has done a more rigourous examination of personality development of men.

METHODOLOGY

A brief description of the method and procedures used in this study, along with a demographic profile of the participants, is included below.

Study Sample

Elderhostel provides one-week experiences of campus life and college level instruction for persons over sixty years of age from all over the United States. Data for this study were collected from 94 participants in four seperate weeks of the Elderhostel program in North Carolina in the summer of 1978. For the 94 individuals completing the Self-Description Questionnaire, 72.3% (68) had complete demographic information. There is no evidence to suspect any systematic bias in the non-response to the demographic questions and when compared to the 920 participants in the total population for N.C. Elderhostel for 1978 there appears to be nothing unique about this sample. The age range is between 60 and 81 with females outnumbering males approximately two to one. Nearly 80% of the participants own either a home or condominium while only 20% rent an apartment. The educational level is very high. Fewer than 9% have a high school education or less and over one third have graduate or professional degrees with the majority having at least some college experience. Approximately half of the participants reported incomes after taxes in the range of six to twelve thousand dollars with over ten percent reporting retirement income after taxes over thirty thousand and less than 5% reporting incomes under six thousand per year. This then is a relatively affluent, active, well educated and independent group of older adults. These types of people are reaching out for continuing education experiences and will be the ones that adult educators may have coming to them in increasing numbers; therefore, they were judged to be a priority population for this study.

Instrumentation

The Self-Description Questionnaire was developed by Robert Boyd and subsequently tested for reliability by Boyd and Koskela (1970). It gathers information on an individual's perception of his/her behavior patterns. The instrument is composed of 160 items, each of which was constructed to have a positive or negative valence to the resolution of a given ego-stage crisis.

Data Collection

The Self-Description Questionnaire was administered to the participants in a group setting on a Wednesday afternoon during the week of their Elderhostel program. Participants were given standardized instructions for completion of the instrument. The demographic data were collected as part of the total week evaluation instrument administered in a Friday evening "wrap-up" session.

FINDINGS

Instrument Reliability

For this study two reliability coefficients were computed. Cronbach's alpha ranged from .60 to .82 on the positive aspects of the Like-Unlike scale and .53 to .63 on the negative aspects. The range on the Pertinency scales for alpha was .82 to .87. Guttman's lambda 6 was also computed having a range of .64 to .85 and .55 to .68 on the positive and negative Like-Unlike scales respectively and ranged from .88 to .91 on the Pertinency scales. The reliability coefficients for the positive aspects are somewhat higher than for the negative aspects, but all are within acceptable bounds. The reliability coefficients are very encouraging for the pertinency measures. It is clear that the items were clear to the participants and a clear "self portrait" has been obtained.

Ego Stage Level and Pertinent Concerns

In normal ego stage development, all crises end when an individual makes a choice in favor of one of the two basic alternative attitudes within the current phase-specific ego stage. This choice and the direction in which it is made constitutes the resolution. Resolution, for the purposes of this study, is the ratio between the positive and negative valences of a given ego stage. Of the 160 items on the Self-Description Questionnaire, ten were a measure of the positive aspects of a given ego stage and ten were a measure of the negative aspects of that ego stage. Eight sets of ten postive and ten negative items made up the Like-Unlike scales. The sum of the scores on the ten positive items for a given ego stage were divided by the sum of the scores on the ten negative items for that ego stage. If the result was greater than one, the resolution was judged to be positive for that ego stage. Similarly, if the result was less than one, the resolution was judged to be negative, and if the result was equal to one the result was regarded as neutral.

TABLE 1

Resolution of Ego Stage Crises

Stages	Positive Resolutions		Negative Resolutions		Neutral Resolutions	
	%	N	%	N	%	N
I	57.4	(54)	40.4	(38)	2.1	(2)
Hope						
II	79.8	(75)	20.2	(19)	---	---
Will						
III	63.8	(60)	31.9	(30)	4.3	(4)
Purpose						
IV	86.2	(81)	12.8	(12)	1.1	(1)
Competence						
V	79.8	(75)	17.0	(16)	3.2	(3)
Fidelity						
VI	80.9	(76)	16.0	(15)	3.2	(3)
Love						
VII	80.9	(76)	16.0	(15)	3.2	(3)
Care						
VIII	75.5	(71)	21.3	(20)	3.2	(3)
Wisdom						

Table 1 shows that the older adults in this study have a "favorable ratio" of the positive aspects of an ego-stage crisis over the negative aspects for all of the eight ego stages. The least favorable ratio is the one for ego-stage one, Basic Trust versus Basic Mistrust or "Hope." This may be the result of the age of the population. As individuals grow older they feel that since they have a decrease in bodily and mental function but can remember themselves at a prior time, others may take advantage of them in everyday endeavors and that they must be constantly on guard against this. A rival explanation is that ego stage development is cyclic, and as an individual resolves the crisis of Stage VIII, Ego Integrity versus Despair, he or she starts anew by reviewing Stage I, Basic Trust versus Mistrust.

In addition to marking each of the 160 items as either like or unlike them, the older adults were asked to mark each of the items as to the degree of concern the subject matter of a particular item held for him/her at this particular time of life. The scores on these items were totaled within each set to determine the pertinency scores, which were compared by individual for each stage. If a score for a given ego stage pertinency was the highest for that individual, that ego stage pertinency was given a rank of one and assigned to the highest rank. If a score for a given ego stage pertinency was equal to one or more other ego stage pertinency scores, that ego stage pertinency was given a rank of two and was assigned to the tied rank category. Finally, those ego stage pertinency scores which fell into neither of the described categories were assigned to the less pertinent concern category. The following table displays these findings.

TABLE 2

Pertinent Concerns

Stages	Highest Rank		Tied Rank		Less Pertinent Concern	
	%	N	%	N	%	N
I Hope	13.8	(13)	23.4	(22)	62.8	(59)
II Will	10.6	(10)	16.0	(15)	73.4	(69)
III Purpose	7.4	(7)	24.5	(23)	68.1	(64)
IV Competence	9.6	(9)	20.2	(19)	70.2	(66)
V Fidelity	1.1	(1)	18.1	(17)	80.9	(76)
VI Love	12.8	(12)	17.0	(16)	70.2	(66)
VII Care	19.1	(18)	20.2	(19)	60.6	(57)
VIII Wisdom	19.1	(18)	21.3	(20)	59.6	(56)

Table 2 shows that the older adult has more pertinent concerns in stages seven and eight followed closely by stages one and six. The finding is consistent with those concerning the resolution of the various ego stages and the notion of phase-specific crises. The data show a relatively low positive resolution of Ego Stage I, Basic Trust Versus Basic Mistrust; therefore, it is expected that a relatively high level of pertinent concern would be focused on that stage. Additionally, the phase specific nature of the Erikson model would predict pertinent concerns to be in the last three stages for this particular age group.

Demographic Differences

The Ego Stage resolutions were broken down by age, sex, educational level, income, living arrangements, whether the participant was retired and whether he/she was working at some new job or task. The following is a summary of that analysis.

Level of Education, Retirement and Continued Work showed no difference in the resolution of Ego Stage Crises. This is somewhat suprising in the case of education, in that conventional wisdom leads us to believe that the better educated individual has more skills in resolving personal crises. It is possible that more education produces more problems and therefore the increased skills are averaged out.

Age was used to divide the sample into three groups; 60 through 65 years, 66 through 69 years and 70 through 81 years. There was a significant difference on the resolution of Ego Stage IV, Industry vs. Inferiority (Competence). The older individuals had less positive resolutions for this stage.

Sex was related to three of the eight Ego Stage resolutions. A Chi Square of 6.76 significant at greater than .01 was found for Ego Stage I. Of the women, 64.4% had positive resolutions as compared to 27.3% of the men. The women also had a greater percentage of negative resolutions on Stage VI, Intimacy vs. Isolation (Love) than did the men. This is partially explained by having a greater percentage of widows versus widowers in attendence. For Ego Stage VIII, Integrity vs. Despair, Disgust (Wisdom), women exhibited 80% positive resolution to 54.5% for the males.

Living Arrangements seemed to be related to the resolution of Stage II with those owning their homes having a greater percentage of negative resolutions to Autonomy versus Shame and Doubt. Those who rented an apartment had a greater percentage of negative resolutions for Stage IV, Industry vs. Inferiority, and Stage V, Identity vs. Identify Confusion.

Income was related to the resolutions of Stage II, Autonomy vs Shame, Doubt, and Stage VII, Generativity vs Self Absorption Those having incomes of less than $6,000 per year have a higher percentage of negative resolutions.

SUMMARY

The findings of this study provide corraboration for Erikson's theory of personality development. While certain implications for program planners can be gleaned from the findings, it remains for further research to focus on the use of ego stage development data in highlighting program content or content areas which will satisfy the target population. It is important for the adult educator to realize that there is a great diversity in the population of older adults. Heretofore much of the literature seems to indicate that there is less diversity in the older adult population than there is in children. It would appear that the amount of diversity in personality and interests is at least as great, if not greater, in the older adult than in other age groups.

Professionalization:
Implications for Canadian Adult Education

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Purpose of Study

In recent decades, those who study professionalism have witnessed a growing disaffection with the established professions of law, medicine and divinity. Yet, this public criticism has not dampened the desire among many occupations to seek professional status. In fact, it would seem that professionalism is a growing phenonomon in present day industrial society.

Adult educators resemble other occupational practitioners in that they, too, seem caught up in a desire to professionalize. This endeavour became the subject of Lawrence Allen's doctoral dissertation entitled The Growth of Professionalism in the Adult Education Movement, 1928-1958. According to Allen, adult educators in the United States have developed a national association, the Adult Education Association of the United States, which seeks to represent the interests of the adult educators in that country. These andragogues have begun to develop a theoretical body of knowledge. This body of knowledge may be small but Allen observed that it is unique, somewhat different from the knowledge which is possessed by pedagogues. Adult educators have also developed training programs within the university structure. Such programs serve as a means whereby the accumlated knowledge of the occupation can be transmitted to those who desire entry to the occupation. Lawrence Allen concluded that since the occupation of adult education in America possesses such characteristics, it has begun to professionalize.

Lawrence Allen's study ought to make Canadian adult educators reflect on the status of their own occupation. Such reflection is important if adult educators wish to determine the future direction of the occupation. Hence, the purpose of the thesis reported in this study was to motivate Canadian adult educators to debate the implications of professionalizing their occupation. To this end, the thesis sought to determine whether Canadian Adult Educators have begun to move toward professional status. It is, however, insufficient for adult educators in Canada to become cogizant of the fact that their occupation may be professionalizing. Rather it is of greater importance for adult educators to possess a broad understanding of the process of professionalization, the motivating factors which led men to organize as professionals,

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and the implications which professionalism may have on the ability of the occupation to meet its societal obligations. Hence, the thesis reviewed the historical development of the legal, medical and clerical occupations in England in order to identify the underlying process, motivation and implications of professionalization.

The English Learned Professions

The historical review of the English Learned professions identified general developmental trends common to all three professions. Each profession in turn worked diligently and enthusiastically to carve out a particular role in society.

After they had accomplished this, the three occupations soon recognized that it was not enough to create a demand for service but that they must also establish the means whereby they could assert control over those who practiced in the occupation. This process of organizing the occupations began when practitioners succeeded in establishing societies with power to control, educate and discipline their collegues. The professional association assisted the three occupations to gain status and occupational security. However, it became evident that as these occupations became secure and successful, they became increasingly conservative and self indulgent. This was especially true for the barristers, bishops and physicians, who made up the most priviledged and superior class in these three occupations, commonly referred to as the upper branches. It eventually became common practice for these practitioners to oppose any efforts to reform the practice of divinity, law or medicine. With this shift in attitude the occupational associations which were initially established to promote competent practice, became primarily concerned with maintaining the status quo and protecting the priviledged position of the membership. They accomplished the latter objective by restricting the number of practitioners. The upper branches were unsuccessful in this endeavour for public demand for service gave rise to new classes of occupational practitioners who were subordinate to the upper branches of each occupation. These practitioners in the lower branch of each occupation were prepared to provide service to the public and therefore competed with the bishops, barristers and physicians.

The upper branches of each occupation begrudgingly recognized that they were dependent on their respective lower branches, yet they attempted to maintain a distinction between themselves and the lower branches. The bishops, barristers and physicians seemed to assume divine right status, exercising power over the subservient practitioners. At times, these superior members of the learned professions would come to life when they felt that the incompetent practices of the lower branch degraded the image of the upper branch. In an effort to improve the practices in the lower branches the barristers, bishops and physicians attempted to supervise the practice of the members of the lower branches.

Law, medicine and divinity entered the twentieth century as well established, powerful professional institutions in English

Society. It is, though, important to recognize that the history of these occupations identified characteristics which do not necessarily surface in contemporary research on professionalism, in that the practitioners were more concerned with protecting their own positions in society, than in remaining primarily concerned with the welfare of the public.

Professional trends in North America

As previously explained, the primary focus of the thesis was the professionalization of the occupation of adult education in Canada. Since the major focus for the analysis of the profession was the learned professions in England, it became essential to determine whether that analysis was relevant to contemporary North American society. Secondly, in order to gain a full understanding of professionalism, it became necessary to establish whether it remained possible for an occupation to achieve professional status and, as well, to highlight twentieth century North American trends in professionalism. To this end, the thesis established that professionalism, based on English tradition, lives on in North America. Canada may be the bastion of that English tradition, especially in light of an understanding of the development of legal procedure in Canada, and as further exemplified in the status which the Anglican Church historically held in this country.

Furthermore, professionalism is achievable in twentieth century North America as evidenced in the professionalization of dentists. The thesis also reviewed the status of teaching as a profession and in so doing, established that there has developed a number of occupations, semi-professions, which may remain on the periphery of full professional status. This does not discount the possibility that some of these occupations may achieve professional status but this is a remote possibility. It is therefore possible to say that professionalism is alive, but it is not possible to say that professionalism is well. Judging by the public's attitude toward the three learned professions, especially law and medicine, it would seem that the general public is quite vociferous in their condemnation of the learned professions. This public indictment should not be construed as indicating that the professions perform totally valueless functions in North American society. The criticism, however, strikes a familiar chord, in that it resembles the publics attitude toward the three learned occupations in England, as these occupations worked to increase their status at the expense of public service in English society prior to the twentieth century. The analysis of professionalism, which began with the historical review of the three learned professions in England and ended with a description of professionalism in contemporary North American society, provided the background essential in establishing whether Canadian adult educators aspire for professional status.

Professional Trends in Canadian Adult Education

The Canadian Association for Adult Education journal, Continuous Learning, provided the basis for determining whether Canadian adult educators have expressed the desire to professionalize. The content analysis of the ten year history of the Journal reflects a desire among adult educators in Canada to seek professional status, in that the articles showed that the contributors to the Journal displayed characteristics similar to those displayed by the English learned professions. As such, adult educators promoted their occupation as essential, if not the pancea for the social ills of an industrializing world. The journal articles also reflected a tendency among adult educators to be seen as different from pedagogues. It is possible to interpret this as a desire among adult educators to promote themselves publicly as a unique occupation.

Furthermore, Continuous Learning reflected an acute awareness and sensitivity of the occupation toward its marginal status. In an effort to secure the occupation, the contributors to the Journal urged for the development of institutions which would have a primary adult education focus.

Andragogues were shown to be working diligently to establish an unique knowledge base, which was then promoted by the occupation as essential to practicing the craft of adult education. This tendency again resembled the learned professions as they vied for increased status in society.

A critical element essential to establishing an occupation as a publicly recognized and legitimate profession was for the occupation to possess an organization which was publicly recognized as representing the practitioners in the occupation. The association then worked on behalf of the membership to gain status for the occupation. The Canadian Association for Adult Education (C.A.A.E.) is such an organization. The Association has worked strenously to promote the occupation and the role of adult education in society. The leadership in the Association encouraged adult educators to support the C.A.A.E. They saw such support as essential to the success of the Association in promoting the occupation.

Contributors to the Journal observed that adult education practitioners were losing their initial enthusiasm. The passion of the adult education movement was giving way to a staid conservative image. This once again had characterized the three learned professions as they became established as part of the professional facbric of England.

It can, therefore, be said that the journal, Continuous Learning, reflected a desire among Canadian adult educators to aspire to professional status in a manner characteristic of the three learned professions. As a result of this observation Canadian adult educators ought to acquaint themselves with the negative, as well as the positive connotations of professionalism as exemplified in the behavior of the three learned professions. Such an exercise should not be interpreted as an attempt to oppose the general tendency within democratic societies to organize in order to influence legislators. On the contrary, it is important that occupations possess the right to organize. Such organization not only benefits the occupation, but can, as well, benefit society.

Adult educators must consciously debate the question of professionalizing their occupation. Such a debate ought to bring forward many alternatives and variations to the traditionally accepted interpretation of professionalization and of professionalism. The debate should encourage discussion of the advantages and disadvantages of professionalizing versus unionizing the occupation. Adult educators must as well consider the question of government involvement in the disciplinary functions of professions. Another item which bears consideration is the role of the layman in directing the affairs of the occupation.

The evidence advanced in this thesis strongly points out that the primary purpose for organizing an occupation is to protect the members and to guarantee them adequate compensation. Since this is the primary motivation for organizing, possibly adult educators ought to consider the value of unionizing their occupation, especially in light of the fact that the public is increasingly bent on vocalizing their scepticism of the professions.

Adult educators should not, out of hand, dismiss the idea of government intervention, even though governments and their bureaucracies tend to be the target of public criticism. The government may be able to perform a valuable third party role in areas generally considered as the private domain of professionalized occupations. Third party intervention would allow an occupation to avoid scepticism and suspicion which the public vocalizes when the professions undertake disciplinary proceedings against one of their members.

The analysis of the three learned professions implicity identified the repercussions encountered by occupations which failed to heed public sentiment. Many adult educators speak highly of the value of involving adults in decisions which affect them but, all too often this does not become operationalized in the associations which seek to represent adult educators. Those practitioners in the field of adult education who question the value of professionalism must make every effort to determine the role of laymen in advancing and improving the occupation.

Should such a debate transpire, adult educators must look beyond mere token citizen involvement. Adult educators must consider the ramifications of inviting a number of citizens at large to become active members of the governing boards of the regional and national associations. In order for these citizens to participate actively in the decision making process of these governing boards, it is important that the associations provide the members with an opportunity to become fully acquainted with the occupation. This could be accomplished through intensive and ongoing orientation. Through involving citizens in this manner, adult educators may avoid the conservative influence which tends to envelope professionalized occupations.

It is imperative that Canadian adult educators thoroughly debate the advantages, disadvantages and alternatives to professionalism. Such a debate is essential in creating a strong, viable and publically accountable profession which will match the unique qualities of the occupation. Should adult educators fail to determine an appropriate manner of organizing the occupation, they risk sliding into a style of professionalism reminiscent of the three learned professions and in so doing, may endanger the entire occupational field of adult education.

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The Utilization of Oral History Interviews and Archival Materials as Primary Sources of Data for Adult Education Research

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INTRODUCTION

The development of postgraduate medical education in the United States has been influenced by social, economic and political forces, as well as the medical profession, its societies and organizations.

After the Flexner Report of 1910, postgraduate medicine was largely reparative, trying to overcome the inadequacies resulting from the teaching failure of proprietary schools. According to Flexner, the inadequacies could best be remedied by postgraduate programs which were located in medical schools associated with a teaching hospital of a university. In Michigan, the state medical society had offered courses to physicians. By 1926, realizing its limitations, it began to look to other sources as providers. A three-man committee was appointed to investigate the potentials for postgraduate medicine in the state. As a result of their recommendations, The University of Michigan's Board of Regents established a Department of Postgraduate Medicine within the Medical School in June,1927. The basic objective was the continuing education of physicians. Gradually, other priorities were addressed, and the Department expanded its role and its functions. In 1972, following a review of the Department, recommendations were made and approved. The name was changed to the Department of Postgraduate Medicine and Health Professions Education, to better reflect its expanded activities.

PURPOSES OF THE STUDY

The purposes of the study were to (1) describe and document the founding and development of the Department of Postgraduate Medicine at The University of Michigan from 1927 to 1978, (2) identify and describe the internal university factors and external events, issues and individuals that impacted on the Department's directions, (3) trace the linkages between lifelong learning/adult education and postgraduate medicine at The University of Michigan, and (4) discuss the Department's responses to major developments in continuing medical education during that period.

METHODOLOGY

This study used a historical approach in the organization of the material, allowing chronology to determine much of the form. Archival materials at The University of Michigan were examined, including correspondence, documents, reports, publications and actions of the Deans of the Medical School, the Presidents and Boards of the University, and the Chairmen of the Department of Postgraduate Medicine. Additional material was gleaned from the archives of the Michigan State Medical Society.

A second method for obtaining primary source information was through the use of oral history interviews with a former Dean of the Medical School, the present Dean of the Medical School, and present and past Chairmen of the Department of Postgraduate Medicine. Other persons included individuals involved in the past and present University of Michigan's programs of adult education and postgraduate medicine.

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THE USE OF ARCHIVAL MATERIALS

To begin assembling the materials for the study, an initial review was conducted of the documents on file at the Bentley Historical Library of The University of Michigan. There were seventy-two boxes of loosely-organized materials, ranging from the founding of the Medical School in the mid 1840's, to the records of Medical School Dean Albert Furstenberg ending in 1957. Records from the Department of Postgraduate Medicine were contained in several locations, including storerooms of the University Hospital, various libraries, personal holdings of physicians formerly associated with the Department, and The Towsley Center for Continuing Medical Education. It also was necessary to become familiar with cross-indexing by name, department, program or activity, as it became apparent that relevant information was filed under titles as Postgraduate Medicine, department chairmen's names, President's Reports, Medical School Deans, Extension Service, adult education etc. Included were official letters, memos, reports, conference proceedings, personal correspondence and assorted memorabilia. These items were typed, handwritten, printed and often obliterated.

After identification of the unpublished materials, the second activity consisted of an examination of the available published archival sources. At The University of Michigan, Proceedings of the Regents of the University were issued semi-annually, and contained the complete proceedings of every meeting since the University's inception. Along with these reports, the yearly President's Reports were sources of extensive information. In addition to remarks on the yearly "state of the university," each department chairperson also prepared a report, which included descriptions of new programs, enrollment statistics and problems or issues encountered during the year. Both the Regents Proceedings and the President's Reports provided chronological documentation of the University's events and activities in general, and the Department of Postgraduate Medicine in particular. These two sources provided archival data which was incorporated into the organization of the materials prior to analysis, interpretation and the actual writing process.

To interpret the overwhelming amount of historical material which accumulated, organization became the key to success. The use of a chronological framework assists the researcher in the analysis of the material in a time-line format. This can also be developed into a visual component which can accompany oral presentations of the material. The following procedures were utilized and are suggested for similar research efforts:

1. Each item was labeled as to source, Ex. "Letter, President Ruthven to Dr. Bruce, March 24, 1932; Ruthven Collection, Vice-President's folder, Michigan Historical Collection."

2. As time periods were identified for each chapter, legal-size manila folders were labeled by chapter, title, and time period. Other information might include names, topics or other key words. As research was concluded on a particular topic, material was placed in the appropriate folder.

3. Research on archival materials continued until the researcher was comfortable that there was no more material anywhere that had not been identified and examined.

One question which was asked throughout this study may also be applied to other historical research projects. How relevant to the topic is this particular document? When a researcher is confronted by exciting, informative and personal material, the tendency is to include everything. This soon becomes highly impossible, and so the process becomes one of determining the most relevant of those documents. Another folder may be labeled to retain all the material not included. Often it is necessary to incorporate some of the less important material to balance the narrative. Relevance and control of the materials must be of constant concern to the historical researcher as the narrative is written.

ORAL HISTORY INTERVIEWS

Oral history is a method of recording primary source information about the past through personal interviews conducted using a series of pre-planned questions. Formal oral history interviews are usually conducted using tape or cassette recorders. There are many ethical and formal procedures which take place prior to an actual interview. (Baum, 1971; Starr, 1977)

For the purposes of this study, oral history interviews were not conducted in the traditional sense. In one instance, the most important personal source (a past department chairman and donor of the CME Center) absolutely refused to have his responses taped. Notes were taken, and the information was woven into the narrative when appropriate. In another instance, the process simply consisted of informal discussions, which were then used as sources of enrichment.

As a general suggestion, it might be appropriate for others who wish to incorporate interviews into their research, to first determine the format of the paper. If it is to be a historical treatment, it then becomes inappropriate to break the narrative by bringing in the present conversations of an individual regarding a recollection of fifty years previously. Rather, let the statements be woven into the narrative and refer to the source by a footnote.

DISCUSSION

When the study was developed, it was hypothesized that there might be a relationship between the development of adult education and the program in postgraduate medicine. At the time of the founding of the Department, (1927) a young educator was employed by the W.K. Kellogg Foundation to develop a series of public health programs in seven southeastern Michigan counties. Subsequently, this educator crossed paths with Dr. James D. Bruce, a physician and a member of the three-man committee which recommended the Department's founding. Bruce was impressed with what Kellogg was doing, and he began to turn to the application of the newly-emerging adult education movement to medical education. In 1929, Alexander Ruthven, a renowned zoologist, became President of The University of Michigan. Bruce and Ruthven had become acquainted through mutual friends at the Kellogg Foundation, and eventually developed a long and personal friendship, bound by a strong commitment to the principles of adult education. The young educator also came to The University of Michigan, and became the Assistant to the Vice-President (Dr. Bruce). His name was Howard McCluskey. These three individuals were the key figures in the internalization of adult education into the mainstream of The University of Michigan, and its eventual national expansion.

In 1931, Dr. Bruce was appointed to serve in the newly-created position as Vice-President in charge of University Relations. This gave him the responsibility for coordinating the relations of the University with other institutions and groups, "... for aid in the solution of practical problems and education for adults."[1]

Bruce's remarks on adult education in the 1930's serve to illustrate an individual's contribution to adult education documented by historical research. Those remarks are applicable today.

> If we accept the definition of education as the conscious and purposeful adaptation of the human organism to its environment, then we must realize how importantly the central idea of adult education enters into the lives of all of our people whether or not they are "educated" in the usual acceptation of the term.[2]

Bruce's speeches to various groups usually described the postgraduate medicine program and its relationship to adult education. He addressed the Adult Education Institute often. In one such speech, he stated:

> The effectiveness of cooperation with the various agencies interested in medical education or service, suggested the propriety of a similar organization of all state tax-supported educational institutions for the development of fields of common interest, particularly as these relate to adult education. The experience of the last ten years in the University would seem to indicate that the most orderly and effective methods for the establishment of satisfactory public relations, beyond the traditional campus activities, are through an integration of the institutional resources with the needs and demands of community living.[3]

In 1938, Bruce wrote:

> ...that in adult education lies the most important field for the composite activities of its member units... if the needs of the state in adult education are to be adequately met, all available educational resources be utilized. There is desirability of the tax-supported institutions of higher learning of the state in dealing with the problem of adult education.[4]

Dr. Bruce suggested a program for adults should begin in the public schools followed by the development of a coordinated plan for adult education in Michigan with representatives of educational institutions and advisory committees. He encouraged a united effort to avoid duplication of programs and unnecessary competition in adult education. He placed the difficulties in the administration of adult education on the inequalities in distribution (delivery) and an overlapping of activities, rather than a lack of facilities.

> The more or less informal character of adult education, the scarcity of teaching personnel, and the great number of interests in the community make adult education something to be shared both by the institutions and the people of the state.[5]

A new agency called the Associated Agencies for Adult Education was formed. The Michigan Council on Education which had been working effectively since 1920, indicated its desire to become a member agency. After another year of study of the needs and demands for adult education, the Council was formally disbanded, and the Associated Agencies for Adult Education assumed the responsibilities of both groups under the designation "Michigan Council on Adult Education." Dr. Bruce observed that:

> Continued experience in adult education reveals more and more clearly the necessity for assembling all our available educational resources if we are to meet with reasonable adequacy the present needs. While working together in a statewide program in adult education, each institution is proceeding with complete autonomy in meeting its own problems and obligations.[6]

Dr. Albert Furstenberg, who served as Dean of the Medical School for over twenty-five years, recognized Dr. Bruce's accomplishments and identified the continuum of lifelong learning in the President's Reports of 1940.

> We are all cognizant of our responsibility to continuing education and are striving to make postgraduate studies an extension of our undergraduate program and an integral

> part of our educational plan. It is felt that there should be no line of demarcation between undergraduate and postgraduate work. In our Medical School we have organized postgraduate facilities which prepare doctors for all fields of research, academic and professional service.[7]

Furstenberg's years at The University of Michigan were referred to as the "Golden Age of the Medical School," during which time he was a close personal friend of both Dr. Bruce and President Ruthven.

Ruthven's concerns for adult education were expressed in his presidential address of 1938, when he discussed consistent attempts which had been made since 1929 to "round out the offerings of the University... by improving opportunities for growth in phases of living often underestimated by universities. Specifically, ... adult, including so-called postgraduate education have been promoted. A bare beginning has been made... to carry the University to those beyond college age... Much experimental work remains to be done in the field of adult education."[8]

Dr. James Bruce died in 1946, and the Board of Regents of the University adopted a memoir, which read in part:

> Dr. Bruce's interest in continuing education went far beyond the limits of medicine alone and led him to become one of the University's most vigorous proponents of adult education and a leader in the enormous advances made in that field by the University.[9]

In a final official tribute, it was noted that:

> The interest of Dr. Bruce in the adult education field was first aroused in the area of postgraduate medical education. When he saw what could be done by enlisting the interest of the practicing physicians of the state in continuing education he began to consider the possibilities in other fields such as law, teaching, engineering, industry and allied lines of activity... For the colleges to work together... Dr. Bruce decided that an organization should be formed... to further the adult education movement in the state of Michigan to a point where universal adult education would be as much the rule as universal elementary education--no other person in Michigan could have accomplished what Dr. Bruce brought about. His sole aim was to further the education of adults in the state through any institution or agency which would offer its assistance. The established adult education movement in Michigan.... is his greatest monument.[10]

RESULTS AND SUMMARY

This paper has presented a discussion of a doctoral study. Two methods of data retrieval were used in the historical approach - first, the use of archival materials, and second, the use of oral history interviews. Procedures for both methods were described and suggestions were offered for similar research activities. Limitations were set forth for the incorporation of archival materials and oral history interviews into a historical study.

The findings from the study resulted in the documentation of 1) the influences of the adult education movement on the Department of Postgraduate Medicine at The University of Michigan, 2) the contributions of educators outside the field of adult education who directly influenced the internalization of adult and continuing medical education at The University of Michigan, and 3) the series of impacts which influenced the Department's directions, priorities and responses.

An indirect result of the research was a compilation of all information sources at The University of Michigan relating to the Department of Postgraduate Medicine.

Interviews with individuals involved in a unit or program's past activities may elicit new insights into the material, and provide that individual with a sense of accomplishment and recognition. Those retired from active participation may also enjoy renewed vigor and interest in research.

Perhaps the greatest value of all lies in the researcher's role as a historian. The challenge to organize becomes an exciting basis for interpreting past activities and identifying future directions. Adult educators need to become more responsive to the opportunities in their own communities, institutions and agencies to utilize these two sources of data. If more historical research is undertaken, new linkages between the adult education movement and previously unrecognized individuals and impacts may be identified.

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The Existential Ethical Value of THE FLIES for Adult Educators

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INTRODUCTION

The play has been used for hundreds of years as a device to teach and entertain. The Greeks used it to display the tragedy and beauties of life. Aristotle, for example, believed the play to be one of the best ways to teach the ignorant about complex interrelations of life. He believed that through the stage people could view their problems and make sense of them (1). Through history others have also used and promoted Aristotle's conception of the play. Sean O'Casey's trilogy SHADOW OF A GUNMAN portrays the struggle of the Irish people fighting for their independence from England in 1916 (1). O'Casey is one of many twentieth century playwrights who have continued Aristotle's approach. He has used his plays to incite the audience to think about their condition and to incite them to act on their life situation. Jean-Paul Sartre is another who has followed in Aristotle's tradition. Unique about Sartre's plays as opposed to some other twentieth century playwrights, for example, O'Casey, is that they are more than representations of the human condition, but products of his existential philosophy (2).

Of the many plays Sartre has written and staged, THE FLIES is the most unique in the sense it was written in response to the oppression of the French people by the Nazis in 1943 (3). Although a somewhat misunderstood play, there is no doubt THE FLIES is an existential ethical thesis play (4). Sartre himself has said that the reason he wrote the play was to show the "tragedy of freedom as contrasted with the tragedy of fate... and to explore the question, 'how does a man behave toward an act committed by him, for which he takes full consequences and full responsibility upon himself, even if he is otherwise horrified by his act?' (5:87)

As an existential ethical play, THE FLIES is timeless. It is a play about how people anywhere and at any time should act in the face of oppression. It is a play that can provide people with insights on how to act ethically in the face of oppression. But THE FLIES may seem particularly ambiguous and difficult to understand unless one is aware of its symbolic and metaphoric relations.

Like many of the French playwrights who have modified Greek plays to serve their own purposes, Sartre modified the Greek trilogy ORESTEIA resulting in THE FLIES (6). For this reason THE FLIES is somewhat of an ambiguous play. It contains many of the contradictions and ambiguities of ORESTEIA. Sartre could have excluded many of these contradictions and ambiguities when he modified ORESTEIA but this would have exposed his intentions to the Nazis to incite the French people to resist their occupation of France. Sartre needed a play that could communicate his existential ethical views to the French people without raising suspicion among the Nazis. Since the Nazis were familiar with Greek tragedy and did not find it threatening to their occupation (7) Sartre's views were safe in the metaphor and symbolism of ORESTEIA. Once a person understands this, the contradictions and ambiguities of THE FLIES should not interfere with the existential ethical purpose of the play.

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As an existential ethical play about how one should act in the face of oppression, THE FLIES has relevance for the adult educator. According to Carlson (8), Ohliger (9), Hall (10), and Griffith (11), as a few examples, the oppression that Sartre responded to in 1943 through THE FLIES parallels the condition experienced by many adult educators today.

Carlson (8:56) has pointed out that professionalism and formalism is turning adult education from what was once "friends educating each other" into narrow, highly restrictive formal system where adult learners are treated less humanely and more as economic and political financial pawns. For Carlson, most adult educators have become nothing more than "educational managers."

As one of the editors of the newsletter, SECOND THOUGHTS, Ohliger has revealed the oppression of adult educators by saying "adult education is increasingly becoming compulsory by law or social pressure, accompanied by drive for more certification, credentialing, and professionalization. These trends are burgeoning within political and economic structures dominated by a small minority. Within this framework, knowledge is defined as worthwhile only if it is technical or scientific. Professional elites are increasingly securing monopoly control over access to this knowledge and its development." (9:6)

Hall has also pointed out the political, economic, and social pressures experienced by many adult educators. He claims that "cadres of adult educators in many countries have demonstrated the place of adult education within the internal struggle for equality, participation, and the external struggle within economic, political and cultural imperialism." (10:9)

Griffith has discussed what seems particularly supportive of the similarities between the situation of the adult educator today and the Sartre of THE FLIES by alluding to the political and economic pressure experience by many adult educators in the 1970's: "Adult educators working within budgeting constraints, attempts to design programs which maximize their accessibility to potential learners. Yet, despite the programming ingenuity of the planners, the limits to their programming are set by political decisions in which they seldom take part." (11:270) THE FLIES provided the adult educator with a 'general' message as to how to act in the face of oppression. Although during the writing of THE FLIES the oppressive factor was the Nazis, Sartre was responding to any form of oppression. The experiences and observations of these adult educators surely qualify as oppression although not in the form of Nazi rule.

THE FLIES also has relevance for adult educators in a theoretical sense. According to McKenzie (12) works of literature can provide adult educators with insights and new knowledge about human learning and the human condition that cannot be obtained elsewhere. Werkmeister (13) has also discussed the importance and the need of drama as a source of gaining insights into understanding the human condition. He argues that the drama is like "an experiment in valuation and value conflicts that is loosely equivalent to an experiment in one of the sciences and, as such an experiment, it has significance beyond its own immediacies. (13:118)

THE FLIES will have little use to the adult educator however, unless some sense can be made of the symbolism and metaphor the existential ethical message is couched in. Any existential ethical insights adult educators may gain from THE FLIES can be found in symbolism and metaphor intended by Sartre (14) and the parallels made between this symbolism and metaphor and the oppressive situation (human condition) of adult educators.

Sartre used the characters, places, and situations referred to in THE FLIES in the following ways: Orestes symbolizes Sartre himself as the ideal existential ethical man; Argos symbolizes Paris and France; the Argives symbolizes the German Occupation; Queen Clytemnestra symbolizes the French collaborators who wympathized with the German Occupation; King Aegistheus symbolizes the German Occupation; Zeus symbolizes the oppressiveness of one's beliefs in God as a Being to guide one's actions; Electra symbolizes other collaborators of those who sympathized with the German Occupation; and the Tutor symbolizes a skeptic philosopher, one who ridiculously tries to believe in nothing and act on such a belief. The parallels that can realistically be made from these in terms of the oppressive conditions experienced by adult educators are: Orestes symbolizes the ideal existential ethical adult educator; Argos symbolizes any city, town, or community in which the adult educator as Orestes finds himself; the Argives symbolize other adult educators and adult learners; King Aegistheus symbolizes forces which oppress adult educators, e.g., social, economic, and political elements, adults themselves who are resistent to change, and other adult educators who act solely for their own benefit; Queen Clytemnestra symbolizes the same things as King Aegistheus; Zeus symbolizes God in the same way as He was intended by Sartre but now in terms of adult educators; Electra symbolizes adult educators who act in opposition to those adult educators who are symbolized by Orestes; and the tutor symbolizes adult educators who do not involve themselves in the plight of mankind. Other possible interpretations may be possible but these should be sufficient to demonstrate the value of THE FLIES for adult education.

PROBLEM AND PURPOSE

The problem this paper addresses is twofold: (1) there is a lack of adult education literature on the value of the philosophical play for adult educators; and (2) there is no coherent set of ethical guidelines from which adult educators can consult to determine the ethicality of their practices and approaches to teaching, program planning, and evaluation; including issues that arise in the field. Thus, the purpose of this paper is to demonstrate the value of one of these plays, THE FLIES, by relating its existential ethical message to adult education in terms of a coherent set of existential ethical guidelines adult educators can use to evaluate the ethicality of their teaching, program planning, and evaluation approaches and practices (15).

METHOD

Three methods are used to derive a set of coherent existential ethical guidelines and apply them to practices, approaches and issues in adult education. They are: metaphorical parallelism (16), philosophical analysis (analytical and prescriptive) (17), and illustration by example.

ANALYSIS AND RESULTS

In the original study (18) five existential ethical guidelines were derived from the analysis of THE FLIES but this paper deals with only two and applies them to thirteen practices, approaches and issues. The two guidelines discussed in this paper are called the "existential ethical reciprocity rule" (EERR), and the "transcendence rule" (TR). These are stated as: Both adult educators and adult learners should take responsibility for not only their own actions but the actions of each other (EERR), and adult educators should act so as to transcend their own situation and at the same time help adult learners to transcend their situation (TR). Inherent in both these rules is the concept of freedom. For Sartre, if humans do not involve themselves in the life situations of others, there can be no freedom and human dignity (18). And without freedom and dignity there can be no ethics (18). Both the EERR and the TR rules or guidelines are to some degree implied throughout THE FLIES. In the beginning of THE FLIES Orestes enters the city of Argos believing he is free because he is uninvolved with the life situations of the Argives (18:102) but later discovers that without involvement there can be no freedom (18:102-110). Orestes also discovers this in his dialogues with Electra and Zeus (18:102-110, 183-199, 280-293). These relations are explained and illustrated in this paper.

The approaches, practices, and issues analyzed in this paper in terms of the EERR and the TR are: external and weekend programs, study by correspondence, learning exchanges, classroom approaches and practices such as the authoritarian, laissez faire, and democratic, self-directed learning, problem-solving programming, development programming, information programming, formal evaluation procedures, and the issues of marketing and mandatory continuing education.

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Implications of Self-Directed Learning for Functionally Illiterate Adults

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INTRODUCTION AND PURPOSE

Self-directed learning, the major concept considered in this paper, involves choices--choices about what is to be learned or needs to be learned, choices about meeting these needs, and choices about how to evaluate what is actually learned. Self-directed learning skills consist of one's ability to make such choices so that he is able (a) to determine his goal or needed skill, (b) to determine the most effective means for attaining the goal or achieving the needed skill, and (c) to evaluate whether the goal actually has been attained or the needed skill achieved. Such choices often are limited, limited either by the awareness of the learner or by his learning environment. These limitations, however, do not diminish one's ability to be a self-directed learner. The fact that a learner, given the opportunity, makes choices about his learning is the essential element of self-directed learning. If a learner makes decisions about what he is to learn, how he is to learn it, and how he will evaluate whether he actually has learned it, then one may deem him a self-directed learner. If others are making all these decisions for him, such a designation is inappropriate.

This paper in concerned with functionally illiterate students in New York State and the learning programs in which they study. Some of these programs allow students to make the choices in the three areas already mentioned. Because such students make choices about other areas of their lives, it seems appropriate that they be encouraged to make choices about their learning so that they can become self-directed learners. Self-directed learning, variously referred to as self-instructional, auto-didactic, independent, or autonomous learning, is considered by experts to be a primary goal of adult education (Houle, 1964; Knowles, 1970, 1975; Tough, 1971; Freire, 1973). Malcolm Knowles (1970, p. 23) states that one mission of the adult educator is helping individuals "to acquire the skills of self-directed learning." He considers that one test of everything the adult educator does is "the extent to which the participants leave a given experience . . . with increased ability to carry on their own learning."

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Disadvantaged, functionally illiterate adults have been examined minimally with respect to their ability to direct their own learning or their preference for directing their own learning. These adults traditionally have been expected to be dependent and have been made dependent upon others for what and how they learn. Such an expectation of dependence often creates an attitude of dependence in these adult learners which may block the self-direction and ultimately the self-confidence which they need to be successful learners.

The purpose of this paper is to report the findings of a study[1] which described the extent to which 10 public school adult basic education (ABE) programs in New York State fostered self-directed learning among their students and which described the relationship of this fostering to drop-out-rate, length of stay, and preference for self-directed learning. The purpose of this paper also is to report findings of the same study which examined the preference for self-directed learning of over 500 functionally illiterate adults in these programs and the relationship of this preference to stipending of students, their drop-out-rate, and their level of achievement.

Specifically the paper presents findings about the following questions:

1. What is the relationship between the degree to which a program fosters self-directed learning and the drop-out rate of students in the program?
2. What is the relationship between the degree to which a program fosters self-directed learning and the length of stay of students in the program?
3. What is the relationship between the degree to which a program fosters self-directed learning among students in the program.
4. What is the relationship between mean preference for self-directed learning among students in a program and the drop-out rate of the students in the program?
5. What is the relationship between stipending of a student and his preference for self-directed learning?
6. What is the relationship between a student's preference for self-directed learning and his achievement?

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[1] The author's Doctoral dissentation, The effects of programs which foster self-directed learning on drop-out-rate, the length of stay, and the preference for self-directed learning of adult basic students (State University of New York at Albany, 1978). Dissertation Abstracts International, 1978, 39, 1263-A. (University Microfilms No. 78-15, 395).

EXPECTATIONS AND FINDINGS

It was expected that programs which most foster self-directed learning would have lower drop-out rates, would retain students longer, and would have students who preferred self-directed learning behaviors. The study gave no expectations concerning students' preference for self-directed learning and its relationship to stipending, drop-out rate, and level of achievement.

A significant relationship (r=.90) was found between the extent to which a program fostered self-directed learning and preference for self-directed learning among students in those programs. Although not significant, a negative relationship (r= -.50) was found between the extent to which a program fostered self-directed learning and drop-out rate; again, although not significant, a positive relationship (r = .70) was found between the extent to which a program fostered self-directed learning and length of stay. The small number of programs used in the study may account for this lack of significance. Finally, no significant relationships were found between preference for self-directed learning among students and stipending, drop-out rate, and their level of achievement.

IMPLICATIONS

The findings indicate important implications for adult basic education programs. By knowing that a relationship exists between the extent to which a program fosters self-directed learning and a student's preference for self-directed learning, one may plan and develop an ABE program which encourages this fostering. If, in addition, a relationship exists between the extent to which a program fosters self-directed learning and drop-out rate as well as length of stay, then adult educators have important reasons for designing ABE programs which foster self-directed learning. The study also produced a valid, reliable instrument to assess an adult student's preference for self-directed learning. Such an instrument may assist an ABE teacher in designing the most suitable program for an adult student.

Further research with a larger number of programs may reveal significant relationships between the extent to which a program fosters self-directed learning and drop-out rate and also between the extent to which a program fosters self-directed learning and length of stay.

Finally, the research found that there is no relationship between achievement or stipending and preference for self-directed learning among adult basic education students. This finding supports Knowles' contention that adults perceive themselves to be self-directed individuals. Such a finding suggests that all ABE students eventually may need to be given some responsibility for their own learning.

SUMMARY

This paper examines the skills of self-directed learning - the ability to determine a goal or needed skills, the ability to determine the most effective means for attaining the goal or achieving the needed skill, and the ability to evaluate whether the goal actually has been attained or the needed skill achieved.

It reports findings which describe the extent to which 10 public school ABE programs in New York State fostered self-directed learning among their students and which describe the relationship of this fostering to drop-out rate, length of stay, and preference for self-directed learning. It also reports findings which examine the preference for self-directed learning of over 500 functionally illiterate adults in these programs and the relationship of this preference to stipending of students, their drop-out rate, and their level of achievement.

The findings indicate important implications for adult basic education programs. By knowing that a relationship exists between the extent to which a program fosters self-directed learning and a student's preference for self-directed learning, an adult educator may plan and organize an ABE program to encourage this fostering. If, in addition, a relationship exists between the extent to which a program fosters self-directed learning and drop-out rate as well as length of stay, then adult educators have even more reasons for designing ABE programs which foster self-directed learning. The Self-Directed Learning Situation Reaction Instrument can assess an adult learner's preference for self-directed learning; such an assessment may assist an ABE teacher in designing the most suitable program for an adult student.

Finally, the fact that preference for self-directed learning is neither influenced by a student's stipending nor his achievement level suggests that all ABE students eventually may need to be given some responsibility for their learning.

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Theory, Method, and Appropriateness In Adult Education Research

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INTRODUCTION: THE PROBLEM

Every student of the social sciences is faced with the same problems and the same set of choices. Each student must adopt a theoretical basis for investigation; he must select a problem for study; and he must choose a method appropriate to both the theory and the problem. This is not easy. First, theories in the social sciences are scarce, and they are elusive and ephemeral when applied to real situations. Human problems are difficult to delineate, and most importantly for this paper, methods are often dictated by institution policy, tradition, and politics rather than by the requirements of the research problem.

Research methods are broadly classified under two headings -- quantitative and qualitative. It is safe to say that quantitative methods have increasingly dominated social science research. The quantitative tradition, which grows out of the positivist social theories of the nineteenth and early twentieth centuries, seeks the facts or causes of social phenomena with little or no regard for the subjective states of the individuals in question. Quantitative methods are often referred to as "scientific," since they are most often modeled after methods employed in the natural sciences.

Qualitative methods, often described as phenomenological, are directed at understanding human behavior from the subject's own frame of reference. Max Weber was perhaps the first to articulate this phenomenological approach, and Frederick LePlay's well-known sociological study of nineteenth-century European families was perhaps the first to employ qualitative methods.

There has always been a good deal of controversy over the choice of research methods for the study of human problems. The first full-scale debate over these issues in America centered around Herbert Blumer's 1939 critique of The Polish Peasant in Europe and America, Thomas and Znaniechi's monumental and influential sociological study, which relied heavily on what were termed "human documents" -- letters, written accounts, and autobiographies. The lack of a "scientific" method, the role of interpretation and subjectivity, coupled with the obvious power and influence of the study, stirred a formal debate among sociologists over the proper role of subjective interpretation in social research. As Blumer put it, "It is a problem, ultimately, as to whether social research into subjective experience can be made to be scientific."[1]

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The issue has intensified since 1939. Quantitative methods, especially with the advent of the computer and the development of statistical science, have become more and more dominant in social research. At the same time, the alleged failure of research to solve significant social problems has led a number of researchers to seek alternatives to quantitative methods. For these people, social science faces a crisis:

> If we are correct, the crisis of social science concerns the nature of social investigation itself. The conception of the human sciences as somehow necessarily destined to follow the path of the modern investigation of nature is at the root of this crisis. Preoccupation with that ruling expectation is chronic in social science; that idea fixe has often driven investigations away from serious concern with the human world into the sterility of purely formal argument and debate."[2]

SURVEY OF ADULT EDUCATION

With this general background in mind, I made a survey of adult education research to determine whether there is indeed a trend away from qualitative research toward quantitative research. Because most of the important research in adult education is concentrated in one journal, Adult Education, and because it frequently contains summaries of adult education research, a rather comprehensive survey of research in the field is encompassed by a review of this journal alone.

In 1971, Dickinson and Rusnell performed a "content analysis of Adult Education in an attempt to identify trends and patterns in the discipline by analysing journal articles, using objective measures." Using the 20 volumes of Adult Education published since the journal's inception in 1950, these researchers analysed article content as to subject matter and research approach. In an attempt to extend this research, I analysed volumes 26 through 29, covering 1975 through 1979. Comparability between my work and theirs is somewhat suspect, since I have no access to their definition of each category, but I feel that on the whole, my generalizations are valid.

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[1] Blumer, p. 73.
[2] Rabinow, p. 4.

My hypothesis was supported by the analysis. In the first five years of publication (1950-55), articles devoted to empirical research accounted for 8.2% of the total, and those based on subjective beliefs and experiences accounted for 44.3%. In the last nine years, articles devoted to empirical research have increased to over 44%, while those based on subjective information have declined to 9.5%. Of those articles categorized as empirical, there is a marked tendency, especially in the most recent period, toward the use of the questionnaire (64%), and away from the interview (11%) as the main data collection method. There is also a trend toward the use of increasingly "sophisticated" statistical procedures (ANOVA, factor analysis, multiple regression), and away from simple frequencies, percentages, and standard deviation tests.

THE LIMITATIONS OF STATISTICS

The increasing use of statistical analysis in adult education research has gone largely unrecognized, and its ramifications have been largely unexamined. It is well known that the use of statistics places a number of limitations on the researcher. However, most writers in the field neither address themselves to nor recognize that their conclusions are affected by these limitations. A few of the more important of these are outlined below:

1. Truth is often confused with a high degree of probability. (Popper)

2. The more probable an hypothesis is, the more trivial it is, and the less chance it has of advancing knowledge. (Popper)

3. There is confusion between scientific significance and statistical significance. A statistically significant difference is not necessarily an important difference, and a difference which is not statistically significant may be important. (Bolles and Carver)

4. The probability that the research hypothesis is true is often measured by the completely unrelated probability that the null hypothesis is true. This is a major logical fallacy, very commonly committed. (Carver; Winch and Campbell)

5. Statistical significance is directly influenced by sample size. (Carver)

6. Reliability or replicability cannot be measured by statistical significance. (Carver)

FACTOR ANALYSIS AND ADULT MOTIVATION TOWARD LEARNING

To further explore the effects of the trend toward the use of quantitative methods, and to determine the extent and effects of the failure to recognize the limits of the use of statistics in research, I chose for further study a popular research area -- adult motivation toward learning -- and a popular statistical method for investigating it -- factor analysis.

Dr. Roger Boshier is prominent in this area, having published five articles on the subject in Adult Education in the past ten years. Recently, he has been shown to be the most frequently cited author in adult education research. The research in Boshier's work and others' follows the same general design. Adult students are asked to rank on a Likert scale the strength of certain stated reasons for participating in adult education programs. Responses are analysed, and clusters of correlations or "factors" are detected and given names such as "escape/stimulation" or "professional advancement."

The purpose of such research is often unclear. Some researchers believe that if we know why people are seeking adult education, we can better shape and market programs to fit student needs. Others, including Dr. Boshier, see factor analysis as a method which will help us to generate a theory of adult motivation toward learning. Used in this way, factor analysis is not part of a verification process, but rather is one step in the development of a theory that would organize and coordinate adult education research.

In 1977, Boshier published an article which presents the most strenuous attempt at theory-building in this area. He established a dichotomy between two motivational antecedents: life-chance and life-space. Life-chance people are generally interested in education to help them cope with life; life-space people are interested in growth or expression. After administering the questionnaire, Boshier "factor-analysed" the responses into five factors and labelled each as either life-chance or life-space. He then selected a subsample of subjects and attempted to relate social variables -- age, marital status, etc. -- to each factor. He came, in part, to the following conclusions:

> Motives for participation in adult education are systematically related to social, psychological, and other variables. . . . Motivational orientations . . . seem to be surface manifestations of psychological states which are in turn probably related to psycho-social conditions in various age and socioeconomic groups. . . . The attribution of life-chance and life-space labels to the EPS factors

remains tenuous.[3]

It is clear, even after a decade of applying factor analysis to the area of adult motivation, that no clear theory has emerged. The work of Dr. Boshier and other researchers has fallen prey to the following criticisms, illustrative of the more general objections raised in quantitative social research of all sorts:

1. It must continually defend itself against the charge of triviality. The conclusions reached above are neither surprising nor interesting. They probably cannot be used.

2. The research has not generated any theory or idea that is testable. It does not guide or organize further research (although it does spur replications in various research settings).

3. Statistical significance is systematically confused with scientific or research significance.

4. The relevance of sample size, and its relation to the number of factors and the number of items on the questionnaire are ignored.

5. The "stability" (replicability) or test results over time and space is taken as a proof of the test reliability. The issue of external validity is not addressed.

CONCLUSION

Statistical reasoning and research methods from the natural sciences represent only one, limited approach to understanding people. Adult educators often express the idea that people are self-defining and self-interpreting. Adult education and psychoanalysis have one common element -- a researcher must observe the process and quality of interpretation in others while making his own interpretations. Yet statistics and the "scientific" methods, with unremitting "objectivity," seek to exclude the role of interpretation. When subjects are human, such research succeeds only in obscuring interpretive elements.

Adult education can avoid being dominated by quantitative research methods. It is a small enough field for an interpretive researcher to make an impact. Adult education has a long history of interpretive research -- The Inquiring Mind, written in 1961 by Dr. Cyril Houle, a book based almost solely on Houle's interpretation of about 22 interviews, stirred 20 years of research with a simple three-part typology. The success and persistence of this work certainly speaks to the validity of the method.

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[3] Boshier, pp. 111-113.

There are many interpreter/researchers right now in adult education, and there are still a large number of interpretive studies being made. Adult education is a field characterized by self-examination and this often leads to philosophical and policy issues which require constant individual and institutional introspection. The field is not *yet* dominated by scientists. Since practitioners pay very little attention to results of research, there is no overriding need to convince people of the correctness of a particular position. Some of the most respected theories, e. g., those of Eric Erikson, and some of the most respected figures in the field made major contributions to adult education thinking and practices without ever using statistics.

It is my concluding hope that adult education research, from its back-water position in the social sciences, can, because of its avowed built-in sensitivity to its subjects, avoid the current "crisis," show the way to the rest of social science, and accept the meaningful, the non-trivial, the interpretive, rather than systematically removing these elements from the process of inquiry.

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Havighurst's Adult Developmental Tasks: A Study of Their Importance Relative to Income, Age and Sex

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PURPOSE

Stimulated by recent research into developmental stages and processes of adulthood, educators are gradually giving more attention to the potential benefits of linking adult education to adult development. In contrast to the more recent work on adult life stages, Havighurst's theory of developmental tasks has provided a well-established, often-quoted, and clearly delineated framework for planning educational opportunities from childhood through old age. Age-specific tasks such as starting a family in young adulthood, or adjusting to retirement in later adulthood easily become courses in parenting or preretirement education. Prominent adult educators such as Kidd (1959), Knox (1977) and Knowles (1976) have advocated using the adult tasks as a basis for programming.

Although widely accepted by social scientists and educators as reflective of stages of development and as basis for planned learning experiences, there exist only a few empirical studies of Havighurst's adult development tasks concerned with the relative differences between men and women, income levels, and age groups. It has been suggested, though not substantiated, that the tasks are outdated, and biased in favor of middle class adults. If true, this could seriously hamper the potential use of developmental tasks as a source for program development in adult education. Thus, the purpose of this study was to compare by gender, income levels, and age groups the relative importance of Havighurst's developmental tasks.

REVIEW OF THE LITERATURE

The Developmental Task Concept

A developmental task is defined by Havighurst as "a task which arises at or about a certain period in the life of the individual, successful achievement of which leads to his happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by the society, and difficulty with later tasks" (1972, p.2).

There is a clear relationship between social role and developmental tasks, especially for adults. A social role such as "husband" or "wife" necessitates the developmental task of "getting married." Changes in

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social roles and their accompanying tasks provide "teachable moments" for adults. Havighurst has also written of the close relationship between developmental tasks and adult education. An educator can think either in terms of the developmental tasks or the changing social roles specific to different segments of the adult life span. "The adult educator," he notes, "can usefully see the adult part of the life cycle as consisting of a set of stages or phases which make different demands on education and offer different opportunities to the educator" (1970, p. 18).

Previous Research

The adolescent tasks have received more attention from developmental researchers than other phases of the life span. In limiting the search to the adulthood tasks, only a few studies could be found, several of which were conducted by Havighurst himself in the 1950's. These early studies such as one on old people (1969) and another on middle-aged adults (1956) were quantitative studies of developmental task achievement. In the study of 234 adults aged 40-70, for example, Havighurst attempted to measure performance on developmental tasks as manifested in social roles of homemaker, parent, citizen, church member, etc. Results showed little or no difference between sexes or older and younger members of the sample. The most striking differences in the performance of tasks/social roles were according to socio-economic status with upper-middle class respondents performing best (1956).

Of the more recent studies on adult tasks, two deal with college students and one with older people. Ralston and Thomas (1974) studied 300 upper-division and beginning graduate students (ages 21-24) in an attempt to identify pertinent developmental tasks. Of eight emerging categories, two overlapped with Havighurst's adolescent tasks and three overlapped with young adulthood tasks. Eckard (1977) conducted similar study with 172 older female students returning to undergraduate school. She found that the majority of women were engaged in performing tasks from various life stages. Lastly Kurtz and Wolk (1975) in a study of older adults found a significant correlation between life satisfaction and the accomplishment of developmental tasks which were considered to be indicative of a persons's continued growth.

In summary, previous research on the adulthood tasks has measured the achievement of tasks, looked at special populations such as college students, or correlated task accomplishment with other measures. If serious consideration is to be given to using developmental tasks in programming in adult education, then further research is necessary to determine the saliency of these tasks for today's men and women of various ages and income levels. The study reported herein sought to investigate the following questions:

-Are Havighurst's developmental tasks equally important for adults of lower, middle and upper income levels?

-Are the tasks as important for men as they are for women?

-How age-specific are the tasks? In other words, do young adults, middle-aged, and older adults consider their tasks to be more important than the tasks of other life stages of which they are no longer or not yet a member?

-For each age group, which age-specific tasks are considered most important? Least important?

METHODOLOGY

Subjects

Subjects for this study were 540 adult residents of Roanoke, Virginia. Equal numbers (180) of young (18-34 years old; $\bar{X} = 25$), middle-aged (35-59 years old; $\bar{X} = 45$), and older (over 60; $\bar{X} = 66$) adults were selected according to sex and income level. One hundred eighty lower income respondents earned less than \$8,000 per year ($\bar{X}$ = \$4,600), 180 middle income adults earned between \$8,000 and \$19,999 per year ($\bar{X}$ = \$11,300) and the 180 upper income subjects earned over \$20,000 ($\bar{X}$ = \$26,000). While no attempt was made to sample on the basis of race, of the 540 adults, 143 or 26% were black, and fairly evenly distributed throughout income, age, and sex variables. Lower income respondents averaged less than a high school education (11.2 years), middle income subjects averaged nearly two years of college (13.9) and upper income adults averaged nearly four years of college (15.9).

Sampling Procedure and Data Collection

Geographical clusters of lower, middle and upper income areas of Roanoke were identified from census tract data. From a random starting point within a given cluster, and using a scatter pattern for street and household selection, interviewers asked residents found at home to respond to the questionnaire. Near the end of the data collection it became incerasingly difficult and time consuming to fill certain cells (upper income older men, for example). Thus, to complete a few of the cells it became necessary to reach some Roanoke adults where they could be found, such as their place of work. With very few (less than a dozen) exceptions, all adults who were approached at home or work cooperated by filling out the form.

The survey instrument used consisted of a one-page list of Havighurst's developmental tasks for young adulthood, middle age, and old age. Respondents were asked to circle, on a Likert-type scale of 1 (unimportant) to 5 (very important) how important each of the tasks was for them, or would be for them if they were in that stage of life. Information on age, sex, education, race and income was also collected. Interviewers trained by the researchers were asked not to elaborate on the tasks. Questions subjects had regarding the tasks were answered by using Havighurst's words as he has explained the tasks.

Data Analysis

Means and standard deviations for each developmental tasks were calculated for each sample subcategory, i.e., for males and females, three income levels, and three age groups. Since the purpose of the study was to compare the adults' assessments of the importance of the tasks in terms of the three demographic characteristics, the means were rank-ordered and the Kruskal-Wallis "Analysis of Variance" by Ranks statistical test applied. The Krunskal-Wallis test can be used to determine whether significant differences exist among rank-ordered means by two or more subgroups. Given the exploratory nature of this investigation, .10 was set as the acceptable level of significance.

FINDINGS

In general, the 540 Roanoke adults of this study considered Havighurst's developmental tasks to be important for them in their lives today. Responding on a Likert-type scale of 1 (unimportant) to 5 (very important), the mean ranking of most tasks by most of the 18 subgroups averaged 3 (moderately important) or better. However, when responses were compared in groupings by income level, sex and age, interesting trends with regard to the relative importance of the tasks were detected.

Income Levels

The developmental tasks of adulthood were more important for middle income adults than for either lower or upper income levels, though not significantly so ($H = 3.15$, 2df, $p < .25$). In comparison by row of the mean responses, one sees, however, that 16 out of 21 tasks were ranked highest by the middle income group. Likewise, lower income respondents found the tasks least important.

Sex

The 270 women in the sample considered the tasks more important than did the 270 men ($H = 5.55$, 1df, $p < .025$). Again, task-to-task, the mean scores on 19 of the 21 tasks were higher for women. Only the tasks of "getting started in an occupation" (young adulthood) and "establishing and maintaining an economic standard of living" (middle age) were more important for men.

Age

If it is true as Havighurst posits that each age must accomplish its specific developmental tasks in order to achieve happiness and success, then each age should view its own tasks as more important than the tasks of the two other age groups. In this study, this was generally not shown to be correct. Only for the tasks of old age, did the expected pattern even approach significance ($H = 2.34$, 2df, $p < .25$). All six older adulthood tasks were ranked highest by the older adults themselves.

Young adults and middle-aged people did not see the tasks for their age groups as being necessarily more important than the tasks of other ages. Havighurst was perhaps more accurate in delineating the developmental tasks of old age, or it may be that the range of tasks narrows as one ages, or perhaps cultural changes have rendered the tasks of young and middle-aged adults less salient for those age groups than when they were identified more than 25 years ago.

DISCUSSION

In order to maximize comparisons between sub-populations, the study was purposely designed to collect an equal number of responses for each of the 18 cells. While results based upon the Roanoke adults found patterns congruent with Havighurst's earlier study with Kansas City adults (1956), results may or may not be characteristic of the perceptions of tasks held by adults elsewhere. In the strictest sense, generalizations should be limited to the Roanoke adults who cooperated in the study.

Secondly, in having the three age groups respond to all of the adulthood tasks, it was hoped that three-generation comparisons could be made with respect to the importance of any one task, or any one set of age-specific tasks. For those responding retrospectively, however, it was not clear whether they evaluated a task in terms of its importance for them when they were in that life stage, or how important it would be for them if they were younger now, or they think it is for younger people today. Thus, only tentative statements can be made which involve an older person's perceptions of earlier tasks.

Differences among groups in the perception of the importance of particular tasks must be viewed with caution. Women, for example, considered learning to live with a marriage partner in young adulthood a more important task than did men ($p < .001$). This should not be interpreted to mean that men considered it unimportant. Both men ($\overline{X} = 3.919$) and women ($\overline{X} = 4.385$) gave the task a high importance rating. And as stated earlier, most tasks were rated by most groups between 3 (important) and 5 (very important).

Perhaps the greatest limitation of this study lies in the fact that adults respond to a pre-determined list of developmental tasks rather than being asked to generate tasks out of their life experiences. The design of this study did not allow for uncovering different or additional tasks which might be salient for today's young, middle-aged and older adults.

In spite of the limitations of this study, some thought can be given to the trends and patterns which did emerge and their relevance to adult education. At first glance, it appears that Havighurst's developmental tasks pinpoint concerns important to adults today. Nearly all income, age and gender subgroups within the sample ranked the tasks as important. Upon closer examination, however, it would seem that the most responsive consumers of programs based upon the tasks would be females, middle income adults and older people. The tasks might, as Knowles suggests (1976) provide a basis for grouping learners, especially if chronological age were ignored. With perhaps the exception of the older adulthood tasks (which approached significance in their importance for older adults), shifting social expectations with regard to the young adulthood tasks and the nearly equally weighted importance of the seven mid-life tasks would make success of age-specific programming uncertain. Thus, while the individual task itself might be important for adults, the importance of accomplishing it in the stage of life specified by Havighurst was not borne out of this study.

The most intriguing implication from this study is that adult educators who use Havighurst's developmental tasks as an "organizing principle for programming" (1976) risks promoting programming which would have its greatest appeal to women and/or middle income adults. In this study at least, the tasks were found to be significantly more important for women. Likewise, while the analysis by income only approached statistical significance, nonetheless, 16 out of 21 tasks were ranked higher in importance by middle income adults than by either upper or lower income respondents. And of the three income groups, the tasks were least important, comparatively, for lower income adults. Although admittedly difficult to carry out, more studies are needed which allow these groups to generate the developmental tasks and concerns central to their life experiences.

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Models of Motivation for Participation in Adult Education

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INTRODUCTION

The problem addressed in this paper is the adequacy of attempts by adult education researchers to explain the reasons adults give for their participation in education programs. The major line of research by adult educators into the participation of adults in organized educational programs and courses was initiated by Houle in 1961 with the publication of The Inquiring Mind. Nearly all studies of participation in credit and noncredit instruction done since 1961 have either been designed to validate Houle's typology or have used his typology as a starting point for their own research (Sheffield, 1962, 1964; Burgess, 1971a, 1971b; Morstain and Smart, 1974, 1977; Boshier, 1971; Dickinson and Clark, 1975). A clear understanding of Houle's typology is thus essential to understanding this line of research.

Houle's Typology and Participation Studies

While Houle recognized that specific acts of participation by different individuals might have different proximate causes, he assumed that each student could be characterized by one dominant type of motivation or learning orientation. Houle used intensive interviews with 22 adult students to derive a typology of learning orientations which characterized participants as goal-oriented (taking part as a means of satisfying specific goals), activity-oriented (taking part to be involved in social activity), or learning-oriented (taking part to learn for the sake of learning).

Each of the numerous attempts since 1961 to validate Houle's typology used a variety of sources to identify the range of reasons adults give for participation and factor analysis techniques to derive a structure similar to Houle's typology. A basic problem with these studies, however, is that while each researcher was trying to validate Houle's typology, their results do not coincide with that typology. Closer examination of the studies, moreover, indicates that while their conclusions focus of the motivations of adult learners, none of these researchers clearly defines either motivation or motives.

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Critique of the Attempts to Validate Houle

Although Houle hypothesized three orientations, Sheffield identified five, Burgess seven, Boshier fourteen, and Morstain and Smart (using Boshier's instrument) six. Close examination of the procedures followed by the developers of the instruments indicate that basic principles of scale construction were apparently ignored, and that Burgess and Boshier simply assumed there was a need to replace Sheffield's instrument.

Edwards (1970) describes two kinds of scales, empirical and rational, which have different criteria for construction and validation. Empirical scales are constructed by assembling a list of items for an assessment instrument, administering it to a sufficient number of individuals, and then seeing how the patterns of answers differ for subgroups. The validity of the scale comes from the correlation of items with specified types of attitudes, personalities, behavior or other scales. The rational approach, in contrast, is designed specifically to test a theory or hypothesis. A rational scale is constructed of items which are designed and/or judged to reflect the theory. Thus, there is a rational connection between the scale and the object of the assessment. Sheffield and Burgess identified items as one would to construct a rational scale--items were generated and then rated against a hypothesized structure. However, both added items (which the judges had disagreed upon) as "wild cards" to see if additional, unhypothesized, factors would emerge. They thus risked blurring their tests of the hypothesized factors while potentially eroding the validity of the instrument by including items which could not be tested against any hypothesized structure. Boshier's approach, on the other hand, was a straightforward empirical approach which left no alternative to accepting the structure that his factor analysis provided.

While Burgess and Boshier cite a number of problems with earlier studies, including small samples, respondents sampled only from single institutions, expressed statements of reasons for participation rather than reactions to common items, and restricted lists of reasons included in the lists that were used, neither identifies specific failings of Sheffield's instrument or tested Sheffield's instrument (either separately or in parallel with their own) to determine the effects of different kinds of sampling techniques and analyses of results versus the actual content of the instrument. The result is that we have three instruments, with pronounced similarities but large areas of difference. We do not know how they relate to each other and studies using the different instruments are made even more difficult to compare with one another.

Other Methodological Problems

The studies conducted by those researchers attempting to validate Houle's typology also suffer from a number of other methodological problems. Those problems include a lack of distinction between reasons and motivation for participation, a lack of a use of control groups of nonparticipants, no established link between findings and actual participation behavior, a concentration on statistical problems involving factor analysis at the expense of a concern for validity of items and instruments, inconsistent or vague contexts within which respondents are to use the instrument, use of noncomparable populations of students for testing, and ignoring the actual scores of participants on items and scales.

An Alternate Approach

While Houle characterized only one of his groups as goal-oriented (for example, those seeking to learn a new skill), even the groups of learners he called activity- and learning-oriented can be seen to have a goal--whether it is to be with people or to learn for the sake of learning. Houle's classification seemed to be for the purpose of highlighting a group that interested him--those who sought learning for the sake of learning. There is, however, another way to look at Houle's reasons for participation.

Despite the diversity of motivational theory, there are some common elements in definitions of motivation that make them useful to the study of participation. Most definitions of motivation identify two related components of motives: a force or disposition to action and an object or goal of that action (see, for example, Berelson and Steiner, 1963; Atkinson and Feather, 1968; Beck, 1978).

Havighurst (1963) has distinguished between what he terms instrumental and expressive educational goals: instrumental goals help achieve some other goal, in another time or place, while expressive goals can be achieved or enjoyed while they are being accomplished. Those persons Houle characterized as goal-oriented are those who are participating in a course as a means to some end (whether a skill or a job--instrumental goals) while those who participate to be with people or to learn for the sake of learning are participating in the class as an end in itself (expressive goals).

Many motivational theorists divide the forces involved in motivation into those attributed by the individual to himself and those he attributes to forces operating outside of himself, in his environment (Weiner, 1974). The distinction is not always clear--individuals are more often encouraged than compelled to participate so that some individual choice is involved in virtually all participation. However, on balance, the distinction does describe how we perceive the reasons we come to behave as we do. If adult participants are viewed in this way, acts of participation (i.e., course registrations) can be classified as to the dominant kinds of forces and goals which influence the participants.

In sum, the reasons that adults give for their participation in adult education can be seen to consist of goals which they hope to accomplish, and of forces to which they are responding. Both are important in explaining or accounting for participation, but the different nature of these forces and goals indicates that a separation would advance the analysis of the reasons adults give for their participation. Whether those reasons are in fact also motivators should be left for future research, once the range of reasons for participation have been clearly specified. (See Figure 1)

An enormous amount of effort has been invested in developing and using instruments designed to assess the reasons or motives which lead adults to participate in adult education programs. The instruments developed by Sheffield, Burgess and Boshier to validate Houle's proposed typology of adult learners have attracted particular attention. However, it is not at all clear how these instruments relate to one another (do they, for example, measure the same factor space or different spaces) to Houle's typology. Rather than develop yet another instrument, therefore, it is time to determine how the instruments designed by Sheffield, Burgess and Boshier are related or support Houle's typology.

RESULTS

The primary concern of the study was to examine previous research efforts performed to validate Houle's typology of adult learners and their successes in identifying and ordering the reasons adults give for their participation in education. That concern was investigated in terms of three objectives and by the development of a hypothesized framework of reasons for participation in adult education based on definitions of motivation and focused on whether the force to participate comes from within or outside the person, and whether the goal sought is enjoyed in and of itself or is a means to some other end.

The first objective was to test the instruments developed by Sheffield, Burgess and Boshier to validate Houle's typology. The specific questions asked concerned whether the three instruments occupied a common factor space and, if so, whether that space could be better characterized by the hypothesized framework. A test instrument was developed by selecting the four or five highest loading items from each of the factors accepted by Sheffield, Burgess and Boshier and by developing 11 marker items to represent the hypothesized framework. The items were classified (by a panel of judges) with the hypothesized motivational framework of forces and goals and marker items written specifically to match one of the four areas within a hypothesized framework--either an instrumental or expressive goal, or a force from within or outside the individual participant. The test instrument was administered to a sample of 445 persons registered in history, business or noncredit classes offered by Extension Classes at the University of Minnesota during Spring Quarter 1979. The resulting data were factor analyzed by both restricted and unrestricted maximum likelihood factor analysis. The factor analysis indicated that, while the original factors obtained by Sheffield, Burgess and Boshier did a slightly better job of explaining the variance in the data than the forces and goals framework, neither the original structures nor the hypothesized framework were able to exhaust the variance in the data. It was possible to state, however, that the Sheffield, Burgess and Boshier instruments measured the same factor space and, through the marker items, that the forces and goals framework also occupied that space. Four of the six factors identified from the factor analyses of the test instrument data were marked by the items developed to test the hypothesized framework. The scores of the participants on the two remaining factors, as well as the percentage of variance each factor accounted for, were very small.

The second objective of the study was to determine whether the 21 scales which represented Sheffield's, Burgess's, and Boshier's total of 17 original factors and four marker scales could be used to distinguish participants from nonparticipants in adult education. A second sample of 309 individuals was drawn to test this hypothesis from persons calling and requesting a copy of the Extension Classes Bulletin as they were considered to have shown an intent to enroll. Copies of the instrument were mailed to all those who called during one week in February 1979 with the result that 61 persons who subsequently registered (and 75 who did not) returned useable instruments.

The 21 scale scores were used in a discriminant analysis with the two dependent groups formed from participants and nonparticipants. While the scales could be used to correctly assign as much as 60 to 70% of a validation sample to the correct groups (participants or nonparticipants), the scales which were most important in the discriminant function were those which few respondents indicated had been of any influence and which represented the factors that had explained very little variance. Moreover, the participants' and nonparticipants' mean scale scores did not differ significantly for 20 of the 21 scale scores.

The third objective of the study was to determine the relationship between the scale scores and personal characteristics of individual participants (through the use of ANOVA) to see if controlling for those variables would sharpen the differences in scale scores between the participant and nonparticipant groups. While some significant differences were identified for age, sex, and previous education, the differences were most pronounced when the subject of the class enrolled in was also used as a control. In fact, the class of registration was associated with significant differences ($p < .05$) between means for 18 of 21 scales-- and the differences were almost without exception in the directions hypothesized (i.e., noncredit course participants were high on expressive goals and internal forces, business students were high on instrumental goals and external forces and history students fell between the other groups on both types of scales).

CONCLUSIONS

The most noteworthy findings of the study were that the Sheffield, Burgess and Boshier instruments occupied a common factor space, and that the common space appeared to coincide with that of the hypothesized forces and goals framework. Factor analysis of both the 70 items in the test instrument (59 from the existing instruments and 11 marker items) and the 21 factor and marker scales derived from those items resulted in six-factor solutions.

Examination of the data for Sheffield indicated that scales derived from Sheffield's instrument accounted for more variance than the others and that four of his five scales were the highest loading scales on the six factors of scales (including the 3 most important factors). Sheffield was thus more successful (in these terms) than Burgess and Boshier and he did it with a simpler structure. As a result, Sheffield's original 5 factors were more closely examined.

Sheffield had selected items to test for Houle's three-fold typology which grouped reasons for participation into enjoying learning for its own sake, a desire to be involved in group activity, and achieving a goal. When Sheffield factor analyzed his data, however, he obtained 5 meaningful factors and concluded that the goal orientation (as he termed it) had two distinctly different parts (Personal and Societal Goal factors), and that the activity orientation had two parts (Need Fulfillment and the Escape factors). The respondents' scores for the 5 scales representing those factors in this analysis, however, suggest a different conclusion. In the data for this study, the average respondents' scores for the Personal Goal scale rank second highest while those for the Societal Goal scale approach 1.0 (effectively the point of zero influence). Moreover, the average respondents' scores for the Need Fulfillment scale are the third highest and almost a full point higher than the Escape scale. The conclusion can be drawn from these results (the factor scales reported in the literature show a similar pattern) that Sheffield's solution separated the goal and activity items which "worked" (that is, measured attitudes) from those items which few respondents indicated were of influence to them. We might conclude, therefore, that Sheffield had in fact reproduced a structure which resembled Houle's typology and that Sheffield's failure to examine his respondents' actual scores in terms of their "importance to me" resulted in his interpretation of two factors which were in fact of no significance. However, as Sheffield did not report that data, the argument must be confined to the data in this study.

The conclusion derived from this analysis is that the Houle typology can be validated through this kind of measurement approach and data analysis techniques. The typology can moreover be said to describe participants in adult education programs. What the typology does not do is help distinguish participants from non-participants. For that task, future research should focus on non-participants as well as participants and should further focus on the decision to participate (or not) as a means of determining why some adults participate and others do not.

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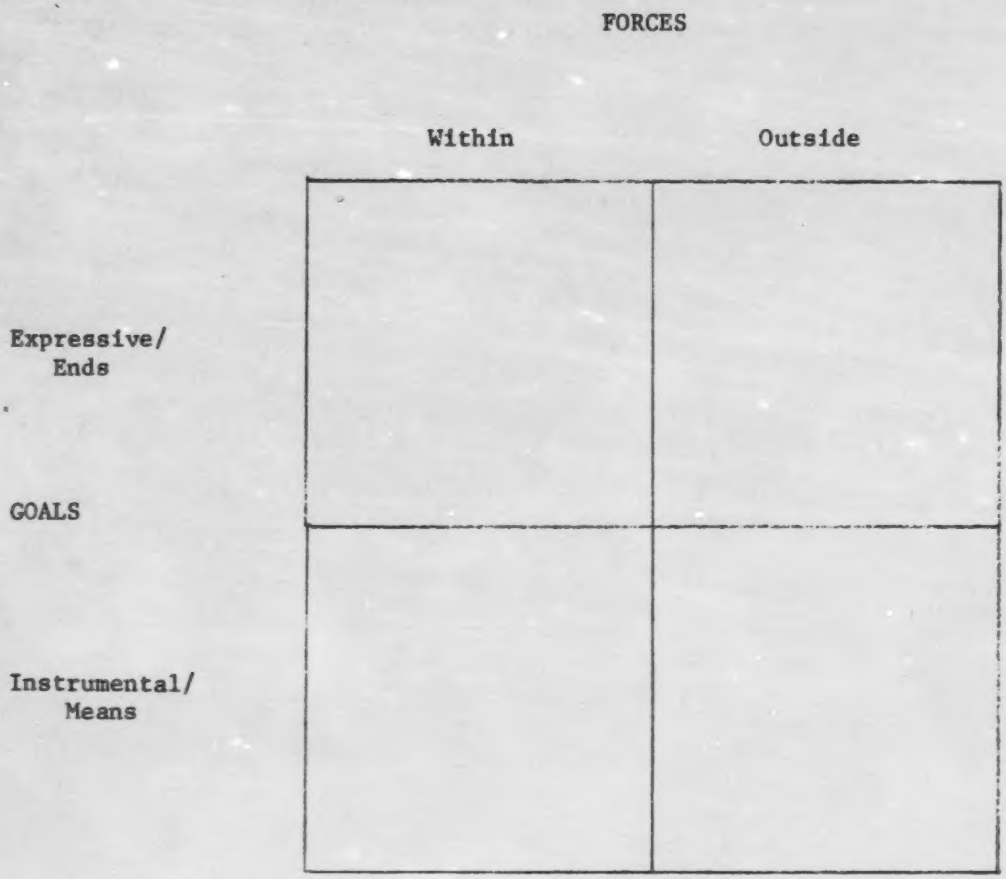
FORCES
Within
Outside
Expressive/ Ends
GOALS
Instrumental/ Means

Figure 1

Hypothesized Framework Relating the Forces and Goals Dimensions

L'auto-évaluation: le cas des langues secondes

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AUTO-EVALUATION ET EDUCATION DES ADULTES

Dans le domaine de l'éducation des adultes, l'importance qu'il faut accorder à l'auto-évaluation des apprentissages semble largement admise. Kidd (1973) justifie le recours à cette pratique par ses effets présumés sur la motivation et par le fait qu'elle contribue au développement de l'autonomie. Quant à Knowles (1970), il en fait une composante inhérente à toute intervention éducative auprès d'adultes. Tough (1971) constate que l'auto-évaluation fait partie intégrante de l'apprentissage auto-dirigé. Tout en reconnaissant pleinement la pertinence de l'auto-évaluation, Fellenz (1976) déplore l'absence de suggestions quant à ses modalités concrètes d'implantation.

On reconnaît implicitement aud adultes la capacité de s'auto-évaluet sans égard aux objets d'apprentissage et au degré de complexité de la tâche. A défaut d'indications plus précises sur ses fonctions, ses formes, ses effets, l'auto-évaluation doit être située au niveau des principes devant guider l'éducation des adultes plutôt qu'au plan des techniques dont l'efficacité aurait été éprouvée. Les recherches sur l'auto-évaluation sont peu nombreuses. McGeever (1978) a examiné la capacité que possédaient des étudiants inscrits à un cours de science politique de s'attribuer une note correspondant à leur rendement. Les résultats obtenus démontrent une tendance générale à la sur-estimation. A la suite d'une étude réalisée auprès d'étudiants de quatrième année en médecine et ayant pour but de comparer les résultats de l'auto-évaluation avec ceux de l'évaluation des pairs et du professeur, on a pu observer que les étudiants sous-évaluaient leurs capacités, par rapport aux deux autres évaluations (Morton et Macbeth, 1977). Heidt (1979) qui a recensé, à la demande de l'UNESCO, les études européennes sur l'auto-évaluation, se dit étonné de la quasi-inexistence de recherches sur la question. Les quelques rapports de recherche qu'il a pu examiner indiquent que, d'une manière générale, les apprenants qui s'auto-évaluent cherchent à éviter les extrêmes positifs et négatifs et à se tenir dans la moyenne des estimations. En revanche, il rapporte que l'auto-évaluation semble avoir occasionné une plus grande motivation à poursuivre des tâches difficiles.

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Il semble évident que le contexte dans lequel se déroule l'auto-évaluation peut influencer les types de réponses que les apprenants seront amenés à donner. Lorsqu'il s'agit d'apprentissages réalisés en vue de l'obtention d'un diplôme, on peut penser que la tendance sera à la sur-estimation, quelle que soit la forme que prendra l'auto-évaluation. Par contre, il y a tout lieu de croire que pour tous les apprentissages réalisés en vue de leur utilisation dans des domaines d'activité sociale, les apprenants jugeront leur niveau d'acquisition de façon plus réaliste.

AUTO-EVALUATION ET LANGUE SECONDE

Le degré de compétence en langue seconde ou étrangère constitue un excellent exemple d'un type d'acquisition pouvant facilement être confrontée à la réalité. Il suffit de faire usage de la langue dans une situation de communication authentique (converser avec un locuteur natif, regarder un film, lire un article de journal). Mais avant de pouvoir réaliser convenablement de telles activités langagières, il faut consacrer des centaines d'heures à l'apprentissage. Apprendre une langue seconde représente à n'en pas douter une tâche extrêmement complexe à cause du nombre d'éléments de divers niveaux à maîtriser et des règles qui régissent l'usage de la langue. La plupart des adultes ne se sentent apparemment pas prêts à s'engager dans ce type d'apprentissage sans l'aide d'un professeur. Par ailleurs, il est impossible d'atteindre un niveau de compétence satisfaisant pour les adultes uniquement par des cours, l'apprentissage devant nécessairement se poursuivre de façon autonome au contact des locuteurs natifs.

Cette dernière considération met en évidence le rôle que doit jouer l'auto-évaluation dans l'apprentissage d'une langue seconde par des adultes (Huart, 1978). Comme l'enseignement actuellement dispensé dans les institutions est centré sur le contenu, le développement de la capacité de s'auto-évaluer ne figure pas parmi les objectifs. En outre, les techniques d'enseignement, notamment la correction des fautes, renforcent l'idée que les apprenants sont incapables de juger de leur comportement langagier.

Quand à savoir si les apprenants adultes de langue seconde possèdent ou non cette aptitude à l'auto-évaluation, quelques recherches récentes démontrent qu'ils peuvent jusqu'à un certain point évaluer leur niveau de compétence si on leur soumet une liste de situations ou d'activités langagières (Oskarsson, 1978; Ferguson, 1978).

Avant d'introduire l'auto-évaluation dans l'intervention éducative, il semblait opportun de vérifier d'abord si les apprenants adultes étaient capables de juger de leur niveau d'habiletés en langue seconde. Comme les critères d'appréciation des professeurs varient en fonction de leur propre représentation de l'importance qu'il faut attribuer aux éléments linguistiques de différents niveaux (prononciation, grammaire, communication, langue orale, langue écrite), un test de langue de type objectif apparaissait plus valable comme variable critère permettant de jauger la justesse des scores d'auto-évaluation.

La présente recherche avait pour but de comparer les scores à l'aide d'un test d'auto-évaluation avec ceux d'un test de langue seconde.

METHODOLOGIE

Une échelle d'auto-évaluation a été élaborée en tenant compte des objectifs linguistiques établis par l'institution. L'instrument d'auto-évaluation comportant quatre échelles, une pour chacune des habiletés langagières, soit compréhension orale, compréhension écrite, expression orale et expression écrite. Les énoncés sont ordonnés du simple au complexe et pour chacun d'entre eux, le répondant devait s'attribuer une note de A à E indiquant son niveau de compétence en regard du comportement langagier décrit. Le score le plus faible est de 40 (10 x 4) et le score le plus élevé est de 20 (50 x 4).

L'instrument comprenait également cinq questions portant sur le niveau de satisfaction du répondant face à sa compétence en langue seconde (globalement et pour chacune des habiletés).

Auto-évaluation
Echelle I - Compréhension orale

A B C D E
(A: aucunement
B: tout à fait)

1. Je distingue les formes du masculin, du féminin, du singulier, du pluriel, du présent, du passé, du futur, du conditionnel
2. Je distingue les formes affirmatives, négatives, interrogatives, exclamatives, et impératives
3. Je comprends les renseignements portant sur les nombres (cotes de cours, horaires, adresses, numéros de téléphone, prix)
4. Je comprends les directives simples concernant ma vie universitatire (études, travaux, administration)
5. Je comprends une conversation simple quand les autres font attention parce ce que je ne suis pas anglophone
6. Je comprends des annonces de conférences, de films, etc. faites en classe ou à la radio/télévision quant au lieu, à l'horaire, au sujet
7. Je comprends les termes courants de mes domaines de spécialisation ou d'intérêt
8. Je comprends une conversation ordinaire même si on ne tient pas compte de ma présence
9. Je comprends des conférences sur les sujets spécialisés relevant de mes domaines d'étude
10. Je comprends tous les niveaux d'anglais et je m'y considère aussi bon en compréhension que dans ma propre langue

Quant au test de langue, il comprenait trois sous-tests (compréhension orale, compréhension écrite et expression écrite) et il a pour but d'évaluer le niveau de compétence en langue seconde en fonction des exigences linguistiques fixées par l'institution. Il faut souligner que ce test n'évalue pas la compétence en expression orale. Cependant, de nombreuses recherches on démontré qu'il existe une excellente corrélation entre le niveau de compétence dans les autres habiletés et l'expression orale.

Les sujets étaient des adultes inscrits aux cours du soir de français et d'anglais langues secondes de l'Université d'Ottawa (trimestre d'automme 1979) et qui, pour la plupart, n'étaient pas obligés de satisfaire aux exigences linguistiques établies par l'institution puisqu'ils ne postulaient pas de diplôme. Ils ont subi le test de langue seconde (test I) et rempli le questionnaire d'auto-évaluation (auto-évaluation I) au début du cours et ont subi une forme parallèle du même test de langue seconde (test 2) et ont à nouveau rempli le questionnaire d'auto-évaluation (auto-évaluation 2) à la fin du cours. Cent quatre-vingt-neuf sujets ont été testés mais malheureusement un bon nombre d'entre eux ont ou bien refusé de répondre au questionnaire, ou n'ont pas répondu à toutes les questions, ou étaient absents le premier ou le dernier soir du cours. Des données complètes ne sont disponibles que pour cinquante-six sujets, mais lorsqu'on examine les variables séparément, le nombre de répondants se situe presque toujours au-delà de cent.

LES RESULTATS

L'analyse des données a consisté à établir les coefficients de corrélation entre les scores obtenus au test de langue seconde et ceux de l'auto-évaluation.

Corrélation entre le test de langue I
et l'auto-évaluation I

	Tous	1	2	3	4	5
N:	(166)	(14)	(29)	(60)	(45)	(18)
Compréhension orale	.43	.47	.25	.28	.24	-.01
Compréhension écrite	.50	-.58	.31	.22	.50	.05
Expression orale	.39	-.47	-.25	.32	.28	-.31
Expression écrite	.41	-.52	.23	.26	.41	.13
Total Auto-évaluation	.49	-.52	.20	.32	.40	-.07

Si on considère l'ensemble des sujets, il existe une assez bonne corrélation entre le score obtenu à chacune des échelles et le score total au test, ainsi qu'entre le score total au test et celui de l'auto évaluation. C'est l'expression orale qui révèle la corrélation la plus faible suivie de l'expression écrite. Or, il faut rappeler que le test ne mesure pas l'expression orale.

Il est intéressant de faire remarquer que les sujets du niveau I, soit ceux qui d'après les résultats obtenus au test ont un niveau minimal de compétence linguistique, ne se comportent pas de la même façon que les autres. Ils semblent avoir surestimé ou sousestimé leur compétence dans trois des quatre habiletés, mais le petit nombre de sujets incite à la prudence. Les sujets du niveau 5, soit ceux qui selon le test ont le niveau de compétence le plus élevé, ont un comportement différent de ceux des niveaux 2, 3 et 4. Ces résultats ne signifient pas nécessairement que les sujets les plus avancés sont moins aptes à l'auto-évaluation, bien au contraire. Mais comme le niveau 5 du test est celui qui suit l'exemption, et que plus on avance dans la compétence linguistique, plus il est difficile d'évaluer les niveaux adéquatement, il se pourrait fort bien que le test ne discrimine pas suffisamment dans la partie supérieure des scores.

Corrélation entre le score total du
test 2 et l'auto-évaluation 2

	Tous	1	2	3	4	5
(N)	(91)	(6)	(14)	(38)	(25)	(7)
Compréhension orale	.59	.90	-.06	.22	.42	-.08
Compréhension écrite	.64	.96	.02	.03	.45	.33
Expression orale	.58	.77	-.01	.05	.18	.22
Expression écrite	.60	.83	.13	.18	.24	.25
Total Auto-évaluation	.67	.95	.03	.14	.40	.18

Pour l'ensemble des sujets, les coefficients de corrélation entre le score total au test 2 et celui de l'auto-évaluation sont plus élevés que ceux obtenus au début du cours. Le comportement des sujets au niveau I s'est complètement modifié. Ce sont, cette fois, les sujets du niveau 2 qui obtiennent les plus faibles corrélations.

Les résultats des 56 sujets pour lesquels les données sont disponibles pour toutes les variables retenues, sont comparables à l'ensemble pour le pré-test (début du cours) mais sensiblement différents pour le post-test. Les coefficients de corrélation sont moins élevés que pour le pré-test, alors que pour l'ensemble des sujets, ils sont plus élevés.

Les coefficients de corrélation entre le niveau de satisfaction et l'auto-évaluation varient de .3 à .7, ce qui signifie que le niveau de satisfaction a tendance à augmenter avec le score de l'auto-évaluation. Cependant, dans le cas des 56 sujets déjà mentionnés, le coefficient de corrélation entre le niveau de satisfaction et le score obtenu à l'échelle "expression orale" est de .33 pour le pré-test alors qu'il se se situe à .62 pour le post-test. Ce changement pourrait être attribuable à l'accent mis dans les cours sur le développement de l'expression orale.

CONCLUSION

D'après les résultats obtenus, les apprenants adultes de langue seconde semblent posséder une certaine aptitude à évaluer leur niveau de compétence linguistique. L'analyse des données a fait ressortir que les étudiants qui, selon les résultats du test, possédaient une compétence linguistique dépassant le niveau des cours offerts ont effectivement les scores les plus élevés au questionnaire d'auto-évaluation. Pour les autres, bien qu'on puisse dire qu'une bonne proportion d'entre eux s'évaluent de façon assez réaliste, la variation individuelle s'avère importante. Les données ne permettent pas de dire qu'il y a un niveau de compétence à partir duquel l'aptitude à l'auto-évaluation serait plus grande.

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Motivation and Benefits

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INTRODUCTION

Since 1961, motivational orientation studies of participation have focused upon reasons for enrolling. No study had been completed which attempted to measure the perceived benefits of participants in terms of their reasons for enrolling. The purpose of this research was to measure and compare perceived benefits and reasons for enrolling of adult part-time students and to expand the motivational orientation research to include an extended time-frame - the duration of the course. Previous research in this area had focused upon the psychological foundations of motivation for participation and reasons for participating prior to or at the time of enrollment.

The researcher and the practitioner are interested in the needs of the participant prior to the commencement of the course, but of equal importance for the conduct and planning of programs is a knowledge of the extent to which needs of participants were satisfied.

DESIGN OF THE STUDY

Development of the Instrument

A Motivation instrument consisting of 63 items was developed. Each item was taken from either the Continuous Learning Orientation Index (Sheffield, 1964), the Reasons for Participation Scale (Burgess, 1971), or the Education Participation Scale (Boshier, 1971). Responses were requested for, "The reason that I enrolled in this course was". A Perceived Benefits instrument was developed using the same 63 items which requested responses to, "As a result of this course I have".

Each instrument contained a four point scale. The scale of the Motivation instrument contained:

Much Influence	Moderate Influence	Little Influence	No Influence

and the scale of the Benefits instrument contained:

Much Benefit	Moderate Benefit	Little Benefit	No Benefit

Adminstration of the Instruments

A Motivation instrument was administered at the beginning and the Benefits instrument administered at the conclusion of the course. The instruments were administered to part-time adult participants enrolled in undergraduate credit courses and non-credit courses at Concordia University, Montreal, and to participants enrolled in courses similar in topic and duration in Montreal business and industrial settings.

The number of responses was as follows:

University credit setting	235
University non-credit setting	83
Business or industrial setting	322
TOTAL	640

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ANALYSIS

Factor Structure

Data from the Motivation instrument was factor analyzed. Although previous studies in motivational orientations which used instruments to "measure" motivation were concerned with the emergence of factors to "explain" reasons for enrolling, the factor analysis, in this study, was performed also to provide scores against which scores from the Benefits instrument could be compared.

A varimax rotated factor matrix after Kaiser normalization was used. Fifteen factors had eigenvalues greater than one and these accounted for 60.7 per cent of the variance. Only items with a factor loading of at least .40 were retained. Seven factors emerged and were named: Preparation for the Future, Escape-Stimulation, External Expectations, Personal Development, Personal Satisfaction, Enjoyment of Learning, and Social Relationships.

Discrepancy Scores

For each item contained in the seven factors, the numerical values of 4, 3, 2 and 1 were assigned to the respective responses: Much Influence, Moderate Influence, Little Influence, and No Influence.

In the Motivation instrument, the item scores for each factor were summed over for each of the 640 respondents. The same procedure was followed for the same items in the Benefits instrument. The Discrepancy Score was generated by using the formula:

$$D_{i=1,7} = \Sigma B_{i=1,n} - \Sigma M_{i=1,n}$$

Analyses of Discrepancy Scores by Setting

The respondents were classified into groups according to setting (university credit, university non-credit, and business or industry) and a one way analysis of variance was used to test groups for each of the seven factors. The Tukey Multiple-Range Test was used to compare all combinations of groups by placing similar ones in the same subset.

RESULTS

In all instances, the .05 level of significance was used to reject a null hypothesis.

The results of the analysis indicated that for the respondents of this study:

1. There was a significant difference in motivation for participation according to setting. Respondents in the business or industrial setting had the highest mean score for the factors: Personal Development, External Expectations, and Social Relationships.

   Respondents in the university credit setting had the highest mean score for Preparation for the Future.

   Respondents in the university non-credit setting had the highest mean score for the factors: Escape-Stimulation, Personal Satisfaction and Enjoyment of Learning.

2. There were significant differences in the perceived benefits according to setting for each factor except Escape-Stimulation.

For the factor, Preparation for the Future, the university non-credit setting had the lowest mean score and was significantly different from the university credit setting and the business or industrial setting.

For the factor, Personal Satisfaction, the university credit setting had the lowest mean score and was significantly different from the university non-credit setting and the business or industrial setting.

For the factor, External Expectations, there was a significant difference among the three groups.

For the factor, Enjoyment of Learning, the university non-credit setting was significantly different from the business or industrial setting. The business or industrial setting had the lowest mean score.

For the factor, Social Relationships, there was a significant difference between the business and industrial setting which had the highest mean score and the two university settings.

3. The participants in the business or industrial setting perceived greater benefits in comparison to their reasons for enrolling for the factors: Personal Development, Preparation for the Future, Escape-Stimpulation, Personal Satisfaction, and Social Relationships. For the other two factors, External Expectations, and Enjoyment of Learning, there was no significant difference.

CONCLUSION

There were significant differences in reasons for enrolling and in perceived benefits in the three settings. Should these results be confirmed by subsequent studies, then adult educators may wish to use this information as a theoretical framework on which to base future recruitement, course developmentand implementation strategies.

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The Development, Testing and Application of a Model for Assessing Competency in Professional Nursing in Kansas Hospitals

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The research project was threefold. First, to develop and test an instrument to measure nursing performance using criteria supplied by nurses. Second, to determine if there was a relationship between educational training, experience, age and/or State Board Test Pool Examination scores and nursing performance, as viewed by the head nurses and nursing supervisors. Third, to investigate the possibility of a relationship between the degree of importance nurses attribute to the roles which continuing education training and participation in nursing associations play in their professional development and their performance as nurses.

The nursing performance evaluation instrument and the questionnaire were constructed in a manner to provide analytical data suitable for descriptive and inferential statistical procedures.

To determine if there was a difference between mean performance scores of nurses based upon the degree of importance of each task as assigned by the individual supervisors and mean performance scores of the nurses based on a state-wide average of the degree of importance of each task, the t-test for related samples was used. The t-test was used as the study included two measures on a group of subjects, the subjects being randomly selected and representing a normal distribution in the population.

Whereas this research involved six observations on each subject and was concerned with the possible relationship between the variables, the Pearson Correlation Coefficient was selected to establish the degree of correspondence or relationship which existed between the variables.

The analysis of variance is a statistical procedure that is appropriate for use with two or more samples. It is also appropriate for groups either equal or unequal in size. The use of analysis of variance is based upon the assumptions that the samples are independent random samples

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and that they are from a normally distributed but equally variable population, having the same means.

The nursing educators, nursing supervisors and floor nurses who suggested the criteria and those who participated in revising and selecting the criteria, were used to establish content validity for the research instrument and to assure its relevancy to actual nursing performance.

Nurse educators from six educational institutions and nursing supervisors from nine hospitals, including three each from small, medium and large facilities, participated in the selection of criteria appropriate for evaluating nursing performance. Nine nurses revised the categorization of nursing services and placed each criterion under the correct category. Nurses and nursing supervisors from twenty-eight hospitals selected the fifty criteria deemed the most appropriate for evaluating a nurse's performance in a hospital setting. Five hundred ten nurses from sixty-eight hospitals participated in the study.

All instruments reported on were of two types with most of them being rating scales.* Rating scales are norm-referenced measurement instruments as they generally refer to one's performance in terms of the ratee's position in some group. Norm-referenced instruments determine the quality of a nurse's performance in relation to the performance of other individuals, an ideal model or the frequency with which the desired behaviors occur. Problems encountered in using rating scales are, the unwillingness of the rater to take the trouble that is demanded by the appraisal procedure and that the rater may identify with the ratee to such an extent that he/she will not make a rating which would hurt him/her. Norm-referenced scales, using levels of competency ratings, usually make no attempt to define the behaviors which constitute competency at any one level. This leaves it to the rater to interpret the scale and make his own judgment. These scales usually list levels of competencies as (1) superior, (2) above average, (3) average, (4) below average, and (5) unacceptable. Also the lack of clarity regarding expected behavior could confuse the rater and prevent an unbiased rating. Thus simple rating scales may encourage and foster qualitative measurement based on the judgment of the rater and not be an objective method. Scales, which used terms such as "always, almost always, often, usually, more than average, less than average, occasionally, rarely, almost never and never," can only be valid if the individual being rated is under constant observation. This is not only unlikely but is not practical or feasible.

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*A selected list of references is available upon request.

The second type of instrument was the criterion-referenced instrument, a type of measurement designed to increase objectivity in evaluation. By using such an instrument, the score which the ratee receives does not depend on a comparison of others being rated. Neither does it depend upon the amount of guidance needed or the frequency with which the behavior is shown. The nurse is judged purely on whether or not she has met the performance criteria. In recording the observations the rater is allowed only to state whether a behavior did or did not occur, with no indication of the degree of efficiency with which the behavior was performed.

The evaluation of nursing performance in hospitals has been both informal and formalized. Until recent years there has been a great deal of subjectivity but little objectivity in evaluation. Criterion-referenced measurement has been hailed as one of the outstanding developments in the recent history of educational evaluation. However, criterion-referenced measurement does not indicate how well a task was performed, only that it was or was not performed.

As previously stated, most of the evaluation instruments described in the literature are norm-referenced in nature. That is, they determine the quality of a nurse's performance in relation to: (1) the performance of other individuals or an "ideal" model on the same measuring device; (2) the amount of guidance the nurse needs; or (3) the frequency with which the desired behavior occurs. In contrast, criterion-referenced measurement judges an individual's performance against specific behavioral criteria. In either case, norm-referenced or criterion-referenced, that which a person observes depends heavily on his conscious and unconscious biases.

The literature surveyed indicated that the proponents of each type of measurement have established validity and reliability for the method they choose to use. Hospitals are by far the major employers of nurses. The American Hospital Association has listed those skills expected of nurses who are employed to provide a major portion of patient care. Literature has shown that nurses are more responsive to and more willing to accept evaluations whose content they have been instrumental in developing. Therefore using the areas of responsibility and the expectations of hospitals, and with nurses from educational institutions and hospitals selecting criteria for measurement, a norm-referenced instrument was developed.* The focus of measurement was on the extent to which the patient's well being is dependent upon the nursing activity and the level of efficiency at which the nurse is currently performing the nursing task.

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*The instrument is available upon request.

The need for continuing education arose out of public and governmental concern that patients receive high-quality care. Methods must be developed to assure those concerned that continuing education has a positive impact on professional job competency. Continuing education should have a direct influence on the quality of patient care by utilizing programs developed to improve professional performance of the nursing staff.

RESULTS

Results of the questionnaire, which was submitted with the evaluation instrument, indicated there were no significant differences in the performance scores of nurses regardless of type of degree/credential earned, years of experience in nursing, age at which they began nursing service and the degree of importance attributed to the role which active participation in nursing associations plays in career development. Insufficient returns did not permit a comparison of the State Board Test Pool Examination score to nursing performance.

Significant differences were found between the mean performance scores and the extent to which the nurses rated the degree of importance which continuing educational training plays in professional development. Those nurses placing a high or extremely high degree of importance on continuing educational training showed significantly higher mean performance scores than those who listed the importance as being average to no importance.

Examination of the type of degree/credential and age at which the nurse entered nursing service revealed eight significantly different interrelationships. On comparing mean performance score and degree/age relationships, it was revealed that associate degree graduates in the twenty-two-twenty-five year age category had significantly higher mean performance scores than diploma graduates in the same age category. Associate degree graduates in the twenty-six + year age category also had significantly higher mean performance scores when compared to diploma graduates of the twenty-two - twenty-five year age category. Mean performance scores of diploma graduates of the twenty-six + year age category were significantly higher than associate degree graduates in the eighteen - twenty-one year age category. Baccalaureate degree graduates in the eighteen - twenty-one year age category and in the twenty-two - twenty-five year age category rated significantly higher on mean performance scores than did diploma graduates of the twenty-two - twenty-five year age category. The only graduates within a degree/credential category showing significant differences in mean performance scores when comparing the degree/age relationships, were the diploma graduates. Diploma graduates of the twenty-six + year age category scored significantly higher mean performance scores than those of the eighteen - twenty-one year age category. Diploma graduates in the eighteen - twenty-one year age category received significantly higher mean performance scores than those in the twenty-two - twenty-five year age category.

When comparing the mean performance of score I and score II a significant difference was obtained. The mean performance on score I was based upon the degree of importance of each task as assigned by individual rators. Mean performance score II was based on a state-wide average of the degree of importance of each task as determined by all participating hospitals. An examination of the data revealed that the significant difference is found when comparing small hospitals (less than fifty beds) to medium hospitals (fifty to one hundred forty-nine beds). There was no significant difference found between small and large hospitals (over one hundred fifty beds) or medium and large hospitals.

The Ascription of Needs in Adult Education in Alberta and Quebec

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> "To which of the philosophical systems otherwise expounded in our country shall we commit ourselves?" (Kallen, 1962:34)

Kallen's question can be rephrased: "to whose needs shall we commit ourselves?" For it is the choice of those needs which will reveal the philosophy to which we are committed. It is one of the canons of adult education that we start with the needs of the learners, i.e. the felt needs, and adult education teaching and literature devotes much time and space to techniques of need-assessment. Houle refers to another kind of need - ascribed needs. These are needs as perceived by some person other than the one who possesses them. This kind of ascription becomes important when it is done by persons or institutions which control resources; it can affect the purposes and patterns of adult education. Furthermore, the proposition can be made that the ascription of needs by government and other funding sources will be closely related to the dominant social philosophy, or ideology, in the community.

This paper explores this proposition with particular reference to Alberta and Quebec. It relates to a recent comparative study of adult education in those two provinces, pursued in the framework of the hypothesis that, (a) there is a continuum of purposes of adult education from less to more socially oriented, and (b) the place on that continuum where the emphasis will lie in any region will be determined by the dominant social philosophy in the region.

The continuum of purposes used in the Alberta/Quebec study is developed from the two broad categories of purpose frequently cited in adult education literature: personal development and social development.

This simple bi-polar scale is amplified by the addition of categories which express further gradations in the scale. The continuum therefore becomes one which sees adult education as being aimed at: (1) a minimally adequate level of personal functioning in a particular environment, i.e. remedial (e.g. literacy and basic life skills); (2) an ability to cope with changing conditions in that environment - family, social, occupational, etc. (e.g. upgrading, courses on stress-management and divorce, etc.); (3) personal well being at a level approaching self-sufficiency (e.g. courses on self actualization, yoga, creativity, etc.); and (4) social or collective well being in terms of the existing social and cultural paradigm (e.g. courses on community analysis, social animation). Out of the study emerges a fifth purpose, which has a different dimension in that it questions the social philosophy and practices of the dominant culture: counter-cultural adult education. The purposes all merge into one another; e.g. counter-cultural adult education can be remedial, in that it helps people in a subordinate culture to confront the demands of the dominant culture, and it also has to do with social and personal development. In other words, we are looking not at a dichotomy between personal and social development, but emphases and a judgement about proximate purposes as distinct from longer-term effects.

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Four factors exert an influence on patterns of adult education along this continuum; they are, the dominant social philosophy, the principal social structures, the available resources, and the needs. Social institutions (formal, informal, government, non-government, etc.) and the relationships between them, tend to be shaped by the dominant ideology, which can be defined as the main political and social ideas inherent in the behavior of those people and groups in society who exercise power and enjoy authority. These institutions ascribe certain needs to the people who belong to or are subject to them. And in accordance with these ascriptions, certain resources are made available to meet the needs. The result is a certain pattern of adult education, in what may be called the public sector.

But there is another source of resources: the level of disposable personal incomes in the region. It is from this source that resources become available to meet the felt needs of potential adult learners, in what we may call the private adult education sector. The relative strengths of the public sector and the private sector will be a reflection of income levels and the general affluence of the population. Hence, in less-developed countries, the adult education picture is dominated by government-financed programs, reflecting government priorities and national policies. The congruence between the patterns of adult education in the two sectors will reflect the extent to which the dominant government ideology, as it relates to adult education, is shared by the people with disposable personal incomes.

Now to relate this to Alberta and Quebec. An assessment of the dominant ideologies of the two provinces was made by an examination of government policy statements, manifestos, parliamentary debates, publications by political leaders, and socio-political and historical analyses. A conclusion with regard to Alberta is that it strongly manifests an individualistic, free enterprise, economic-development-oriented philosophy, and a multi-cultural character, but that there remain traces of an earlier rural/populist element.

Quebec appears as having a leaning toward democratic socialism (with evidence, among some groups, of Marxist socialism), but with significant traces of both an older and a newer bourgeoisie, occurring in different sectors of the society, and a strong manifestation of Québécois culture. Whereas in Alberta there is a strong congruence between the dominant political and economic spheres, in Quebec there is a tension between the two, particularly, but not exclusively, under the P.Q. regime. The economic sphere has traditionally been dominated by anglophones, while the political sphere has become increasingly the preserved of francophones. Renaud (1978) points out that, having been virtually shut out of the higher levels of management in business and industry in earlier years, aspiring young francophones turned to the civil service, becoming both a new bourgeoisie and a new technocracy.

The range and jurisdictions of Ministries which are given a responsibility for some kind of adult education is similar in both provinces. It includes not only the Ministry of Education (Quebec) and the Department of Advanced Education and Manpower (Alberta), but others responsible for such matters as cultural development, social services, recreation, agriculture, communications (Quebec), and consumer and corporate Affairs (Alberta). However, the Ministries of Cultural and of Social Affairs in Quebec have a far higher educational profile than their counterparts in Alberta. Within the Ministry of Education in Quebec, the Directorate-General of Adult Education (DGEA) has a far stronger and more centralizing role than anything that exists for adult education in the Department of Advanced Education and Manpower in Alberta.

The respective Estimates of Expenditures for 1979-80 provide a measure of the relative importance placed of adult education as a whole. In Alberta, 1.9% of the total government budget is allocated to adult education as identified in an examination of departmental budgets and annual reports. In Quebec the equivalent figure is 2.6%. The average expenditure on adult education per head of adult population (i.e. persons over 18 years of age) is 30% more in Quebec than in Alberta.

In both provinces, partly because of the influence of Federal government funding, there is a high priority on professional and technical training, with a relatively higher emphasis on this particular category in Alberta than in Quebec. In both provinces there is a concern about the possible distortion of provincial priorities through such federal intervention. Expenditure in support of general (i.e. non-vocational) adult education programming is over 10 times higher in Quebec than in Alberta (the ratio of adult population in Quebec to Alberta is only 3 to 1), while expenditure on social and community animation programs and socio-cultural education is almost 7 times higher in Quebec than in Alberta. Expenditure on cultural education is relatively at the same level in both provinces, but in Quebec it emphasizes the Quebec "national" culture. Quite apart from the activities of the Ministry of Cultural Affairs, in its support for cultural development, this is evident in the existence in Quebec of a Ministry of Immigration, which devotes considerable expenditures to the adaptation of immigrants.

The areas of activity in which Alberta leads, both relatively and absolutely, are in agricultural extension, which appears to be a reflection of the historical importance of agriculture and the farming community, and in environmental and conservation education, which may reflect a relatively recent concern about the effects of natural resource development in the province.

The evidence from the government sector therefore indicates a much stronger emphasis in Quebec than in Alberta on socially oriented adult education, as well as a greater support for adult education as a whole. This appears to be in line with the more collective, social democratic tendency in Quebec, compared with Alberta.

In its consideration of institutional structures, the study looks, as well, at three non-government institutions which, prima facie, could either reinforce or contradict these tendencies. They are, the labor unions, agricultural organizations, and Native organizations. The relatively high interest in socio-cultural adult education in Quebec is complemented in the structure, strength, and educational activities of the trade union movement, which is far stronger and more aggressive in Quebec than in Alberta. There is a strong syndicalist strain in Quebec. Individual unions and the three main labor federations in Quebec are involved not only in "tool" courses, i.e. education in labor organization, collective bargaining, grievance procedures, etc., but also in broader political education. In Alberta, with a prevailing economic climate and an attitude of government that do not encourage trade union activity, labor education is more restricted both in quantity and scope.

A similar emphasis is seen in the education activities of the Union of Agricultural Producers in Quebec, the central agricultural organization, which is also a registered labor union. (The Alberta Labor law excludes agricultural groups from its scope.) In Alberta the nearest equivalent to the UPA is the Rural Education and Development Association. This agency, which was established by the farm organizations and the cooperatives, does a good deal of social education, in such subjects as leadership, rural development policies, and political lobbying, and in this respect it represents a divergence from the dominant trend in the province.

The interest and activities of the Native organizations in adult education reveal an ambivalence among the people and the organizations themselves. On the one hand, there is among the native people, status and non-status, Inuit, Indian, and Metis, a strong demand for basic education and training needed to equip them to take advantage of economic opportunities, i.e. remedial education in the form of literacy and basic life skills, as well as a demand for higher-level vocational training for personal advancement. In this respect they are influenced by the ideologies and requirements of the dominant white culture. And the emphasis in funding provided by the federal government, supplemented by some provincial government funding, is on that kind of education. On the other hand, in 1972 the National Indian Brotherhood presented the federal government with a policy paper urging Indian Control of Indian Education. The federal government accepted the policy paper and it now provides funding for such a program, controlled direct from Ottawa. In terms of the policy, band councils were given authority to control and direct their own education and training programs, including education in Indian culture.

So, among the native people there exists both the desire for, and some capability to provide, education which they see as reviving and strengthening their own culture, and helping them, as individuals and as a people, to confront the dominant cultures (anglophone and francophone) from a position of greater inner security and with a stronger group memory. This can be seen as both remedial and counter-cultural.

In the same way, much of the socio-cultural education among the Québécois can be seen as both remedial and counter-cultural. It is remedial in the sense of bolstering the sense of self-worth of a people who see themselves as having been the objects of exploitation by anglophone, multi-national forces, and using that identity and self-worth as the basis of learning. It is counter-cultural in the sense of strengthening the Québécois culture against that of the rest of North America.

To return to the concept of public and private sectors, a study was made of the offerings of the main adult education agencies, as reported in the annual reports of the Department of Advanced Education and Manpower in Alberta (1977-78) and the Directorate General of adult education in Quebec (1975-76). This gives a picture of the sorts of programs for which people are prepared to pay. In Alberta we are able to compare this picture with that revealed in jointly published advertisements of programs by principle agencies in Calgary and Edmonton.

What emerges is that there appears in Alberta to be a preponderance of occupational and recreational courses aimed in the first instance at coping and personal well being (67.3%), an almost negligible offering of community related courses (1.9%), and a very limited offering of adult basic education courses (5.4%). In Quebec on the other hand, community related courses were relatively more numerous (13.4%), personal development courses were relatively less numerous than in Alberta (44.0%), and adult basic education courses made up 8.5% of the total.

An interesting feature of the Quebec scene is the large proportion of courses in home skills (e.g. sewing, auto maintenance, and food preparation) (33.8% of total reported courses, compared with 15.6% in Alberta). These are presumably aimed at increasing people's independence of expensive commercial goods and services, and are probably a function of lower income levels in Quebec. It is also interesting that out of the total of 83,378 registrations in such courses, 68,812 were in those which are subsidized substantially by the government. In the community-related courses, 31,264 out of a total of 33,051 registrations were in subsidized courses. On the other hand, in professional and vocational courses 30,447 registrations out of 30,564 were in cours auto-financés, i.e. courses for which there was no government subvention, while in personal development courses, 9,785 out of 11,841 registrations were in cours auto-financés.

In other words, it seems a fair inference that in Quebec there are two quite distinct perceptions of needs. The government, with a substantial element of its francophone civil service, perceives a body of needs related to socio-cultural and community problems, and has a policy for supporting the satisfaction of such needs. In addition to general subventions for certain courses offered through the normal agencies such as schools and colleges, it has special programs, such as the OVEP program under which direct funding is provided to voluntary organizations - such as trade unions, cooperatives, and womens' groups - for popular education. And there are strong voices, such as those of the unions, the teachers' federation, and the ICEA, urging even greater recognition and support of such needs among people who cannot pay much for adult education. At the same time, there is an element of the population with sufficient disposable incomes to exert a demand for adult education with more personal objectives. It is, so to speak, a mixed economy.

In Alberta there is, relatively speaking, a homogeneous perception of needs, on the part of government and of the consumers of adult education. The emphasis on both sides is on various aspects of personal growth, with little concern for social and community development. There are, in fact, provisions under the further education policy of the Department of Advanced Education and Manpower, for substantial grants ($30. per course hour) for programs of community significance, but ever since the introduction of this policy in the mid 1970's the government has discouraged applications, and severely limited funding, for such programs. Hence there appears to be solid consonance in the socio-political views of both the government and the majority of the people. There appears to be but a dim perception that there exist needs, especially among elements of the population who cannot bid for the services of adult education agencies as they are now oriented, of a more basic social character.

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The Assessment of Educational Need in Business Programming

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THE CONCEPT OF EDUCATIONAL NEED

Any overview of adult educational literature indicates that although most writers would agree that needs are important, there is little tacit agreement as to what needs are or how they should be measured. Many descriptors of needs are used in the literature: basic needs, felt needs, expressed needs, real needs, normative needs, etc. The similarities and differences between the various views of educational need have to do with who defines the needs and how they are defined.

Sometimes needs are defined in terms of what people say they want, with those things that people say they want the most being considered the most needed. This has the advantage of showing people's motivations, but it also has the disadvantage in that it really reflect wants not needs. You may want a million dollars but it is unlikely that you need it.

A general definition of need was developed by Witkin (1976). She describes need in terms of a measurable discrepancy between current outcomes and desired or required outcomes. In applying this definition in remains only to identify current and required outcomes - no mean task.

Several definitions of need are used in this study. In order to distinguish between the various definitions of need, I have analyzed the concept of educational need in terms of three descriptors; need components, wants, and needs.

Need Components

Need Components are those single categories of information which by themselves do not readily translate into programming decisions but which form the data base necessary for more rigorous needs identification. The description of these components will be solely in terms of their usage in this study, without respect to how they have been used in other studies or projects. There are three components of a need:

Competence (C). In this study competence refers to an individual's self-appraisal of ability to perform a wide range of business related tasks.

Desire (D). Desire refers to an individual's state of motivation to engage in training to improve his/her competency in each of a wide range of business-related tasks. This is further broken down into short range and long range desire.

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Relevance (R). Relevance refers to an individual's self assessment of the relative importance to his/her present or future job of each of a wide range of work-related responsibilities.

Wants

Wants, as defined for this study, involve a combination of two need components, one of which is Desire (D). Although wants by themselves may not completely reflect needs, they express important information for the programmer. Simply put, an individual's wants must be considered in order to produce a viable program. People may have needs that do not coincide with their wants. In that case they may have poor motivation to meet these needs. Thus, wants provide a more realistic estimate of where fruitful programming could be done than do simple expressions of the discrepancy between what a person ought to be able to do and what a person can do.

Relevance Weighted Want (RWW). A Relevance Weighted Want (RWW) is an expression of desire to learn more about an activity which is important to an individual's job. An RWW ignores an individual's competence at the activity in question. RWW's include D and R but exclude C.

Competence Weighted Want (CWW). A Competence Weighted Want (CWW) is an expression of desire to learn about an activity in which the individual indicates a self-appraised deficiency or lack of competence. A CWW includes D and C but excludes R.

Needs

The most refined category of information reported in this study is referred to as a need.

Discrepancy Need. A Discrepancy Need relates to those business activities which an individual indicates are important to his/her job (present or future) and on which he/she also indicates a deficiency in competence related to the skill. It is the closest approximation to the concept of need developed by Witkin (1976). It includes R and C but excludes D.

Derived Need. A Derived Need relates to those business activities on which an individual indicates low competence, high relevance to their job, and a high desire to take additional training. This supercedes Witkin's (1976) definition because it includes a motivational factor (desire to take additional training). It includes C, D, and R. Because the desire for training could be immediate or in the future we must speak of both Dervied Needs (Immediate) and Derived Needs (Future).

DESIGN OF THE STUDY

Questionnaire Development

A thorough review of the literature associated with business needs assessment revealed that no single instrument was available for this study. As indicated earlier it was intended to gather information in four general areas; competence, desire, future relevance, and present relevance. Although other studies have gathered portions of this information, no one study had gathered all of the information from a single sample.

It was decided to restrict this study to first line supervisors or more senior employees employed by member firms of the Saskatoon Board of Trade. This includes over 700 business ranging in size from <25 to >750 employees.

In order to assess the need components already outlined it was necessary to have some type of criterion measure of activities that a first-line supervisor or more senior employee might be engaged in. In short, some type of job analysis was necessary to create a vehicle to gauge competence, relevance, and desire for training in various areas. Due to the heterogeneity of tasks undertaken by individuals employed as first-line supervisors or more senior positions, it was necessary to seek a measure which contained rather general categories of work activity.

The job analysis instrument adapted for this study is the Job Description Inventory: Management (Prien, 1971). It involves a 100 item list of business related activities on which a respondent is asked to rate on a six point scale the relative importance of each activity to his/her job. This inventory was not used in its original form in this study since many of the items were not relevant to the small business operator or the Canadian business scene. These items were dropped leaving a 78 item list of job activites which were used in order to obtain information in the four general categories already noted.

The procedure used to obtain information was:

Competence: The respondent was asked to respond to each of the 78 items in terms of the statement "My ability to do the following tasks is ..." or "My ability to handle the following is ...".
Present Relevance: The respondent was asked to respond to each of the 78 items in terms of the statement, "One of the responsibilities of my present job is ...", or "An individual in my job must be concerned with ...".
Future Relevance: The respondent was asked to respond to each of the 78 items in terms of the statement, "One of the responsibilities of my next job is likely going to be ...", or "In my next job I will need to be concerned with...".
Desire: A respondents desire to take additional training on each of the 78 items required the respondent to respond to each item in terms of the statement "My interest in improving my skills necessary to do the following tasks is ...", or "My interest in improving my skills in the following general areas is ...".
For each of the four categories, relevant choices were developed to allow the respondent to indicate degrees of competence, relevance, or desire for training.

Data Collection Techniques

The actual collection of data was quite complex. Several versions of the questionnaire were used in the study so that each individual had to respond to only two of the four categories being measured. The results were pooled in such a way that the actual number of respondents to each set of questions was: relevance to present job - 464; relevance to future job - 474; competence - 469; desire for further training - 463.

The number of questionnaires distributed by mail to each Saskatoon business was based on the estimated number of employees. Sufficient questionnaires were sent to each business to accomodate the estimated number of supervisory personnel at these businesses, with instructions to discard extras. Hence, it is not possible to compute the percentage of questionnaires returned since the exact number of supervisors in the sampled businesses is not known.

RESULTS

PROPER PRESENTATION OF THE RESULTS OF THIS STUDY REQUIRE TABULAR MATERIAL TOO EXTENSIVE TO BE INCLUDED IN THIS BRIEF SUMMARY. MICROFICHE COPIES OF THE COMPLETE REPORT ARE AVAILABLE FROM THE AUTHOR.

It was the intent of this study to point up differences in appraised need for training as a result of varying definitions of need. All of the definitions include one or more of the need components competence, desire, or relevance. It is evident that differences in levels of need as indicated by each of these simple definitions will also be reflected in differences between those more complex categories requiring combinations of need components.

Significant differences were evident in the highest ranked need dependent on the definition of need. For example, the Competence defined need was concerned with preparation of company taxes; the highest Desire defined need was concerned with the smooth scheduling of work. Likewise, great differences were evident between RWW and CWW and Discrepancy Needs and Derived Needs. Similarities were evident between definitions in that there was a high convergence between the top 15 ranked needs for each category although there was considerable difference in the actual rankings between categories. In terms of using the results for actual programming, what you define is very definitely what you get!

DISCUSSION

The purpose of undertaking a needs identification is to allow programmers to make informed decisions about needed educational content. The definition of need selected by any given programmer depends upon the context in which the information will be used. Certain agencies may require that a break-even or profit situation prevail. These agencies must be very concerned that potential learners have expressed a Desire to learn about a certain topic. Other agencies may be more concerned with a more comprehensive definition such as Derived Need. No one definition of need is superior to all of the others in all contexts. Without doubt, the identification of need is dependent on how need is defined. This is very important in attempting to compare needs identified under different definitions. They may not be the same due to the differing definitions employed.

There are a few general conclusions which develop from an analysis of the data associated with this project:

1. Need for training is not a unitary concept. Depending on how the user chooses to define need, different terms assume importance. The programmer or course degigner must be aware of the definition he/she is using before attempting any actual use of needs identification results. What is good for the goose is not necessarily good for the gander!

2. Care should be taken in designing learning events from needs assessment data. The choice of courses or other events to be offered, the marketing of learning events, and the learning processes to be used are all dependent on the type and quality of the information obtained during the needs assessment process.

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Perceived and Observed Educational Needs and Interests of Formerly Institutionalized Mentally Retarded Adults: A Qualitative Study Using Participant Observation

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BACKGROUND AND PURPOSES OF THE STUDY

Among the adults who could be called "disadvantaged" or "vulnerable" in this world may be found many of those people characterized by less than average general intellectual functioning. This group of people, the mentally retarded, constitute three percent of the world's population and 6,000,000 people in the United States. Over half of these are adults, many existing in a marginal capacity because they are unable to assume full economic responsibility for themselves. Some of them live in a number of different types of institutions, varying in label from state to state. In the past, as victims of misunderstanding, fear and suspicion on the part of many so-called "normal" people, unable to survive their handicapped existence without care, support and control, mentally retarded persons have spent entire lifetimes forcibly confined to institutional environments.

For many years institutionalization of mentally retarded people served as the answer to the problems engendered by their retardation as well as by the prevalent attitudes toward these handicapped persons. In the late 1960's there developed a movement to "deinstitutionalize" many retarded persons and release them into a variety of housing situations which were characterized by less restriction and closer ties to outside communities. A concept of normalization for the mentally retarded resulted from the movement and prevalence of support for it promoted an important new trend in accepted policy--the increased movement of mentally retarded adults from institutions such as private or state residential facilities into alternative living situations. Public schools and more and more institutions for the mentally retarded are introducing programs specifically aimed at preparing clients for a variety of housing situations. Institutional training programs are assuming the responsibility for ensuring society that adult retardates living in their respective communities possess adequate capability to achieve some financial stability, establish a home and maintain their survival. Therefore it is assumed that persons placed into independent housing by institutions and sheltered care facilities probably possess enough competence in daily and vocational skills to secure the minimum necessities to sustain life and have enough understanding of hygiene and safety practices to make rudimentary efforts to preserve their health and security. Personal and home maintenance, clothing care and use and food preparation are areas considered to be of primary importance for successful living on the "outside" and receive much attention in training programs. It appears that communication skills, community utilization, social behavior and time management, do not. According to experts in the field, work skills, work habits and safety awareness are educational areas which appear to be emphasized in life skills and vocational training programs for mentally retarded adults preparing to enter independent living situations, but life-enriching activities such as effective and satisfactory use of leisure time, self-awareness, achievement and acceptance of meaningful relationships with others, social problem-solving skills, continuing interest in learning, do not.

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Realizing the handicaps under which deinstitutionalized mentally retarded persons may live, it is questioned whether or not just practical and vocational skills developed through institutional training are enough to guarantee them a wide range of opportunities to enjoy richer and fuller lives. Are they suffering frustration, fear, bewilderment over day-to-day decisions necessary in order to survive? How do they approach decisions? How do they manage their time, their efforts? Are they constantly beset by certain problems attending existence as "not normal" in a world of "normals"? If so, what are those problems, can they be identified and understood, and can they be addressed through continuing educational offerings?

These areas warrant investigation in order to inform those persons who are responsible for adult education policy making and programming. For purposes of this study, more specific questions are drawn and the problem becomes then, to address and provide information relating to the following:

> What specific problems do formerly institutionalized, independently living mentally retarded adults perceive relative to daily living and what can be observed as those problems encountered?
>
> What do they perceive as their educational needs and interests in relation to their survival and the enrichment of their lives and what can be observed as those needs and interests?
>
> What do they perceive as possible changes in their lives which could facilitate improvements, and what can be observed as those changes?

DEFINITION OF SELECTED TERMS

Independent Living--maintaining of oneself in a community without any assistance beyond volunteered or solicited advice and economic subsidy.

Institution--in this study applied to all facilities, public and private, which exist primarily for the purpose of providing residential care and/or training for the developmentally disabled, in particular, the mentally retarded.

Mental Retardation--condition of being less than average in general intellectual functioning. The American Association of Mental Deficiency defines sub-average functioning as performance greater than one standard deviation below the population mean of a person's age group. This condition is usually initiated during the early stages of the developmental period--the pre-natal, natal and post-natal period of human life. Causes of the condition range from environmental factors and genetic disorders to effects of disease and injury. The condition is divided arbitrarily into four classifications of IQ range. In descending order of intellectual functioning these are: mildly (WAIS Forms I and II, 55-69), moderately (40-54), severely (20-35) and profoundly (below 20). This study involves subjects who fall into the upper two levels of retardation.

SELECTED REVIEW OF THE LITERATURE

Few studies have been done for the expressed purpose of ascertaining educational needs and interests of post-institutionalized mentally retarded adults. Such needs can only be inferred from information obtained through followup studies of deinstitutionalized adult retardates conducted to examine success or failure at adjustment to independent living; studying that adjustment is, in effect, studying educational needs. Most of the followup studies indicate that there occurs greater success than usually expected for mentally handicapped persons. From Fernauld's major study (1919) to McDevitt's and Rosen's work (1978), positive adjustment to the "outside" world was noted.

Mentally retarded adults, however, see themselves as helpless victims of stigma associated with their condition. Edgerton (1967), Muehlberger (1972) and Bogdan and Taylor (1979) emphasized the efforts that mentally retarded persons must make to overcome the stigma and its effects, efforts which facilitate cloaking of intellectual incompetence and help relieve the constant struggle for normalcy.

According to the literature reviewed for this study, it appears that more problems are encountered by adult retardates which are related to social and personality factors than to actual intellectual deficiency. In most conclusions, the important criteria for success appear to be associated with personal and social adjustment factors rather than observable behavioral abilities, skills and measured test scores.

Many studies confirm that adult retardates appear to wish to contribute to society in general through assuming their own financial support and control of their own lives. Once realization of this occurs, it becomes necessary to determine what part continuing education could take in facilitating this assumption. The kinds and types of educational offerings must be found with assessments of the perceived and observed educational needs of the retardates themselves. If researchers wish to know what mentally retarded adults need, they must ask those adults, the task selected for this study.

METHOD OF THE STUDY

To explore the questions which arise from examination of normalization, one approach was apparently most feasible, that of qualitative, exploratory research in the anthropological tradition, using participant observation. The method is characterized by an inductive, specific-to-general data analysis procedure. Data are collected by an investigator who enters the field of study with only those pre-determined theoretical constraints appropriate to his or her research focus. In this study the participant-as-observer role as defined by Gold (1958) was used. Subjects were informed of the investigator's intents and purposes and the investigator attempted to achieve an informal, relaxed acceptance of the work through interaction and participation. Participant observation, a tool of inductive inquiry, includes a consideration for individual perception and permits attempts to capture the feelings of those studied, examining in detail the significant aspects of their lives relating to the problem questions.

In this study, subjects were enabled to present their lives in their own words through the use of structured open-ended interviews. Although to limit the scope of the study pre-determined question protocols were used, focus and directions of data acquisition were often initiated by the subjects themselves. Unlike the totally structured, interview-survey approach, participant observation prevents the investigator from limiting the investigation to presupposed relevant issues in the lives of subjects. This method, then, was particularly well-suited to the study of the perceptions and needs of mentally retarded adults.

Eight subjects were randomly selected and interviewed over an eleven-week period. In an average number of 22 sessions for each individual, subjects were interviewed/observed in their homes and at their places of employment and recreation. Analysis of data consisted of continuously developing and refining a categorizing system, sorting and evaluating data generated and inductively developing tentative conclusions regarding generalizations.

For the most part, this study confirmed the results of previous studies conducted to evaluate the post-institutional adjustment of adult retardates. These studies indicated that, although most of such persons succeed in securing the basic needs for survival outside the institution, few live very full and rich lives in terms of enjoying a variety of leisure time uses, participating in community and civic affairs and achieving fulfilling occupations. This study also underlined mentally retarded persons' difficulties discussed in other studies reviewed, difficulties which appear to result from the stigma attached to mental handicaps.

For the sample population selected, normalization procedures were substantiated, but a number of incompetencies appeared to limit their choices. Findings included the development of a list of specific educational needs and interests which could be addressed through the efforts of adult and continuing educators, particularly in the areas of academic, vocational, personal development, home management, and leisure time use.

A general pervasive need was defined as the broadened scope of opportunities for changes in deinstitutionalized persons' circumstances. Such changes could break an existing cycle characterized by their beliefs in deserved limitations in choices. It was concluded that negative experiences in public schools, subsequent institutionalization and prejudicial and/or nurturing attitudes of others toward them may have contributed to the subjects' convictions of their incompetence. These convictions appeared so strong that certain rights and privileges were perceived by the retardates to be justifiably denied to them.

Implications to adult continuing education consisted of: the consideration of broadening educational opportunities for adult retardates, making special efforts to include them in current offerings, adjusting the pace of instruction to fit their needs and reducing or changing entrance requirements to allow their participation.

THE METHODOLOGY DISCUSSED

In addition to findings described above, an effort was made to identify implications for researchers who may elect to use the qualitative, exploratory methodology. An evaluation of the process which is part of the anthropologically oriented research tool, participant observation, revealed three relevant considerations: entry and trust-building methods, identification and reduction of investigator bias and ethical decisions regarding reciprocity techniques.

Although such trust-developing techniques as authority, others' advocacy, acts of solidarity and overt sympathy were successfully employed, it was concluded that to secure maximum conditions for interviews, it was necessary to balance the harmonious relationships between investigator and subject with a deliberately induced tension. This tension was maintained through the establishment of boundaries of inquiry through somewhat authoritarian directives.

Increased investigator sophistication in bias identification was developed through the isolation of personal value-based viewpoints and indignation over perceived injustice, as well as the use of veracity confirmation through others, deliberate investigator alienation, determination of error sources and changes of emphases in data evaluation. The last mentioned change included the consideration of interview sessions as part of one stream of inquiry rather than as separate, discrete events, and making a deliberate, concentrated effort to study the process, the flow of the sessions as well as the content developed through them.

Methods of reciprocity examined included the use of gratitude, interest, favors, direct help and satisfaction of subjects' needs for companionship, grievance expression and curiosity. Such ethical issues as justification of partially disguising research purposes and the extent to which acquisition of knowledge warrants misrepresentation of personal concern were considered. Relevant decisions were made with reliance on recognition of individual human worth and dignity.

Further suggested research included the continuing of in-depth analyses of educational needs and interest, evaluating of current offerings, testing of broadened special brokering services for this population, and experimenting with greater coordination between appropriate agencies. In addition, the further utilization of qualitative methodologies, especially the articulation and refinement of this mode of inquiry, is indicated, not only for the purpose of collecting data relative to the education of mentally handicapped people, but to that of other groups, vulnerable or privileged, as well.

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A Factor Analysis of Non-Participation in Church Adult Education

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Much of the research on adult participation concentrates on those adults who are active participants in adult education or it involves attempts to ascertain the type and quality of adult learning efforts. Neither of these efforts focuses on the inhibitors to participation in programs on the part of the adult who may be an active learner or participant in another learning area. Research in patterns of adult non-participation is sparse. McKenzie (4:359) discussed several global dimensions of adult non-participation in church-based education by studying a randomly selected sample of 280 adults located in five urban sampling units or parishes.

The present study is a follow-up that aims at more precise information and greater sophistication both from the viewpoint of sample representativeness and statistical treatment of the data. It was hypothesized that there existed some specific factors of non-participation, and that these would be associated, either positively or negatively, with demographic variables of age, sex, level of education, income, and/or rural-urban location of the non-participant.

Research Methodology

The investigators mailed a data collection instrument to 1,278 randomly selected adults who were non-participants in church-based education in a large Roman Catholic Archdiocese in the Ohio Valley. The data collection instrument was an inventory of 31 "reasons for non-participation." The subjects were asked to agree or disagree with each of the items as a reason for non-participation. A follow-up instrument was mailed to subjects who did not respond to the initial mailing. A total of 678 subjects (404 female, 294 male) responded, yielding a response rate of 53 percent. The coefficient of stability over a two-week test-retest period was .92. This suggests a high degree of reliability. It should be noted that the positions of the items were randomly varied in order to reduce the effect of positional bias.

The number and nature of the underlying variables to be determined from among the large number of measures suggested the use of factor analysis as an appropriate statistical technique. Factor analysis the data reduced to only seven factors. A principle components analysis and orthogonal rotation (varimax) were the specific techniques used since Kaiser (2:91) suggested that varimax is "...probably the best method of analytic orthogonal rotation, particularly in factor analytic computer programs." The process produced large loadings on relatively few variables--the desired outcome.

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Sampling Procedure

The sampling procedure represented a combination of probability and non-probability modalities. The sample was stratified into three segments: urban, urban-rural, and rural. Seven urban parishes, five urban-rural parishes, and three rural parishes were selected purposively. Sample subjects in each of the parishes were selected randomly from parish records.

The Seven Factors

The seven factors of non-participation identified here encompass the patterns of "reasons for non-participation" given by non-participants. The patterns, of course, do not suggest the relative "strength" of the factors as inhibiting elements in the sample population. For example, the four variables that contribute to Factor I, "Resistance to Change and Education," account for 11.68 percent of the total checkmarks made on the data collection instrument; the variables that contribute to Factor III, "Marginality," account for 25.25 percent of the total checkmarks. Because the relative "strengths" of the factors are not evident in the factor loadings, it was necessary to analyze the means of each of the 31 variables very closely. The scores of the variables are displayed in tabular form along with the factor loadings. The score represents the percentage of the respondents that marked that item.

FACTOR I - RESISTANCE TO CHANGE AND EDUCATION

ITEM	*SCORE	EIGENVALUE
I learned about religion in my youth.	.2124	.6449
Religious education is mainly for children.	.0590	.6138
You can't teach an old dog new tricks.	.0472	.6026
There's been too much change too soon.	.1106	.4627

*Percentages for all items will total more than 100 percent since respondents checked multiple items.

It was discovered that the older adult (54+) tended to be represented most strongly, with the 36-53 age group next most frequently represented. Those who fall into this pattern are also likely to have had 12 years of schooling or less and are likely to have a family income of less than $15,000 per year. No sex or rural-urbance differences were detected for this factor.

FACTOR II - ALIENATION

ITEM	SCORE	EIGENVALUE
My feelings toward the institutional Church are negative.	.0870	.6798
I am not very religious.	.1165	.5213
Some of the teachings of the Church are out of touch with reality.	.1401	.5114
I don't like to be lectured to.	.1018	.4869

The younger and middle age groups were represented most strongly in Factor II. The younger adult is most likely to hold negative feelings and to dislike lectures. The middle aged adult is most likely to feel that Church teachings are out of touch with reality. Women are less likely to resent the lecture technique. On the remaining items in Factor II, there is no significant difference between men and women. No differences were uncovered between rural and urban respondents.

FACTOR III - MARGINALITY

ITEM	SCORE	EIGENVALUE
By nature I'm not much of a joiner.	.3496	.6955
I've never been active in parish activities.	.3422	.6255
Most activities outside the home don't interest me.	.1327	.5204
I guess I'm plain lazy.	.1136	.4615

As a personality trait, "marginality" is evenly distributed among the population in terms of age.

FACTOR IV - SOCIAL NON-AFFILIATION

ITEM	SCORE	EIGENVALUE
It's difficult to get accepted by the "in" group in the parish.	.1047	.6672
Other members of the parish are strangers.	.1254	.5936
Those in charge of parish education are difficult to get along with.	.0221	.5242
I would participate but I don't want to attend alone.	.1032	.5209

Adults in the middle age group are most likely to perceive an "in" group in the parish. Young adults are most likely to perceive others as strangers. No significant differences were found with respect to sex, educational level, income, or locale.

FACTOR V - CONFUSION

ITEM	SCORE	EIGENVALUE
The ideas discussed in the program are over my head.	.0516	.6508
I attended previously but just got more confused.	.0206	.6319
There's been too much change too soon.	.1106	.4627

Those in the middle and older age categories are more likely to avoid parish education as a consequence of feelings of confusion. Rural respondents were more likely than urban respondents to feel that programs were over their heads. The "too much change too soon" item was common to this factor as well as Factor I.

FACTOR VI - PROGRAM NON-RELEVANCE

ITEM	SCORE	EIGENVALUE
The adult education program is too old-fashioned.	.0221	.7344
The program topics do not meet my needs or interests.	.1357	.6965

No significant differences were found in the demographic variables for this factor. Program non-relevance is a function of program design in individual parishes.

FACTOR VII - ACTIVITY

ITEM	SCORE	EIGENVALUE
Participation in the program would keep me from family responsibilities.	.2404	.6373
My work keeps me from participating.	.3245	.6160
Classes are scheduled at inconvenient times.	.1268	.5222

Those who checked these items were more likely, by a wide margin, to be in the younger and middle age groups. No differences were discovered in terms of sex, family income, or locale. Those who said work prevented participation were typically less educated.

Conclusions and Recommendations

The findings indicate that certain general patterns of non-participation exist in the adult non-participant population. The reasons for any individual not participating are complex, given the wide heterogeneity of the adult population. A marketing response to general patterns of non-participation, however, will implicitly speak to many of the "reasons for non-participation" of an individual.

The marketing implication of the research findings is one of conversional marketing strategy (3:80). All of the factors of non-participation, except those of Marginality (Factor III) and Activity (Factor VII), suggest that there exists some degree of aversion to the program offerings, a not uncommon client reaction to education.

Ultimately, a successful conversional marketing strategy will disabuse negative demand (aversion) for an institutional program, but not necessarily for the specific offerings, and awaken any existing latent demand. While a strategy may include short range measures to ameliorate immediate problems caused by non-participation, the data suggest that the emphasis of the first phase should be on additional market research to ascertain the dimensions of the client aversion and the existence of any inarticulated latent demand. The planning phase will concentrate on developing educational offerings that meet both institutional and client needs and the promotion phase will be directed toward dealing with the problems of demand as indicated by the non-participation factors. Non-participants must be disabused of negative demand by communicating to them a rationale for rejecting the source of their aversion to the program. As continued monitoring indicates that negative demand has become neutralized, the next phase of the conversional strategy, that of stimulational marketing, is implemented. Stimulational marketing efforts are directed toward discovering and capitalizing on any unexpressed latent demand for the benefits of the program.

The findings of this study and a review of the literature of relevant academic disciplines suggest that program administrators must understand the motivations of their client groups in order to define and analyze appropriate segments of their sphere of operation, and to develop complete marketing strategies. Unidimensional strategies that omit the non-participating segment are seldom acceptable to the professional adult educator. Every attempt must be made to analyze the sources of the market segments' resistance to the institutions' educational activities, to disabuse that negative demand, and to create program offerings that will be demanded by the non-participant.

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A Conceptual Representation of Learning from the Learner's Point of View

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INTRODUCTION

This paper describes a conceptual representation of the learning process where "learning" results in a re-orientation of perspective and a novel approach to action. The formulation consists of a four-phased sequence of inquiry, apparently a cycle, in relation to which there are common concurring social and emotional patterns. The conceptualization was derived from an intensive study of learners' descriptions of experience which were collected at regular intervals throughout a period of involvement in a particularly dynamic learning setting. While the formulation is based on data from learners in this one setting, compatibility of these findings with the literature of creativity (Wallas, 1926; Taylor, 1959), laboratory learning (Schein and Bennis, 1965) and consciousness change in education (Freire, 1970) and maturation (Gould, 1978) suggests a wide range of possible relevance. Further, since the formulation has been constructed on the basis of data which represents the learner's point of view, the schema is especially adapted for use by the learner him/herself as an interpretive device or "map" in guiding his/her own process of inquiry or learning.

LEARNING AS PERSPECTIVE CHANGE

The focus of this study is the phenomenon of adult learning where learning constitutes a qualitative change in a person's perspective and approach to action. As such, it should be distinguished from "learning" which refers to information assimilation, skill acquisition or strictly behaviour change. While it can be seen to incorporate new information, skills or behaviour for the learner, the phenomenon under study here as "learning" is a more complex, encompassing process of change, something of a cultural journey.

An interest in perspective change among adult educators in a variety of different settings is reflected in a growing literature on the subject. Based on his work originally among Brazilian villagers, Paulo Freire (1970) drew widespread attention to this kind of learning which he calls, "conscientization" . Jack Mezirow (1978) in a study of "women participants in college re-entry programs" identified nine elements in what he has named "perspective transformation". Mezirow (1979) regards this process to be the same as what Freire is writing about and the nine elements Mezirow identified are broadly similar to the features of the inquiry sequence evident through this study. Another adult educator, Don Maudsley (1979) has drawn into comparison some of the thinking outside our field (Grof, Argyris and Schon, Bandler and Grinder, Piaget and Bateson) which bears on this phenomenon which Maudsley refers to as "meta-learning". It is to the theory and practice of "this generic domain of adult learning", as Mezirow (1979) calls it, that the outcomes of this study are seen to contribute.

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METHODOLOGY

The data base for this study was eight persons' descriptions of their experiences throughout a graduate course* which had been repeatedly described by learners as having provoked especially "significant learning" for them. These people were interviewed weekly throughout the thieteen-week course and once several months after its conslusion. The interviews were tape-recorded and conducted primarily in an open-ended fashion with learners being asked to describe their experiences in association with the course as thoroughly as possible.

The volunteers for the study had all had from some to extensive university education and professional work experience in the social professions prior to participating in this course. There were six women and two men in the study who ranged in age from twenty-four to fifty years.

Each person's set of fourteen interviews was taken as a unit. It was a comparison of the changes in learners' experiences over this five-month period which revealed the common patterns described here. The analysis was conducted on transcriptions of over one hundred hours of interview time.**

LEARNING THEMES: THE CONTENT RELATED TO THE PROCESS IN THIS STUDY

The learning process described in this paper was precipitated by the "learner-centered approach" in the course in combination with what might be called the "teacher-centered" expectations of the learners. It should be mentioned that, for most of these people, the discovery of some of these "teacher-centered" expectations was as much a surprise to them as anyone. They tended to value notions such as "self direction" in learning. The learning process discerned in the experiences of people in this study grew out of this discrepancy.

Two related, primary themes emerged. Six people became absorbed in an inquiry theme which centered aroung "learning" per se. This involved, among other things, a shift in the conception of knowledge from that of a fixed commodity to be acquired from "outside" one's self to that of an understanding in which there is a necessary personal involvement and responsibility in bringing it about and a dimension of personal interpretation in what results.*** The second theme which preoccupied two of the learners was the related question of what teaching becomes if learners take primary responsibility for their own learning.

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* The course entitled, "Basic Processes of Facilitating Adult Learning" exists as a regular part of the graduate program course offering in Adult Education at the Ontario Institute for Studies in Education, Toronto. It was designed and instructed by Dr Virginia Griffin. People in the Fall, 1976, section participated in this study.

** The analysis procedures are presented in detail in Taylor (1979).

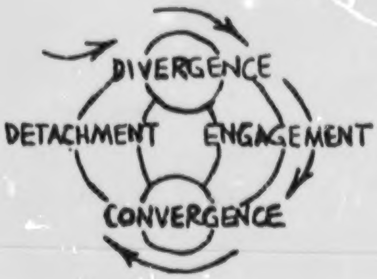
*** It is possible to compare the nature of this inquiry theme to "the common sequence of challenges" which Perry (1968) found in students' re-orientation of their view of knowledge from absolutism to relativism.

DESCRIPTION OF THE INQUIRY SEQUENCE: COMMON PATTERNS IN THE EXPERIENCE OF LEARNING

This comparative study of learners' descriptions over time of their experiences of learning revealed four qualitatively different seasons or phases of the experience. The sequence, apparently a cycle, is discernable as a unit by the consistent order in which the phases occur and by what eventually in the sequence becomes a noticeable theme of the learner's inquiry. The phases have been named "detachment", "divergence", "engagement", and "convergence". The sequence is visually represented as follows:

FIGURE 1:

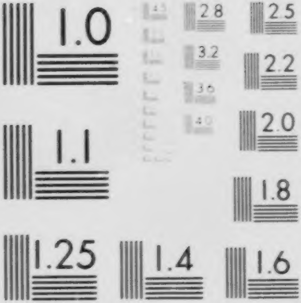
The Inquiry Sequence



The detachment phase is, thematically, an observing stance where the learner relates to experiences by fitting them into existing conceptual frameworks and ideas. "Detachment" here does not signify an observable lack of interest or involvement in activity, but rather that the learner relates to aspects of the environment primarily through preconceptions and expectations. As people entered the learning group there was a tone of anticipation, attention being on attempting to confirm or deny expectations of the group and to assess his/her place in it. Having proceeded through the entire sequence, the return to detachment has a tone of consolidation, the learner being concerned with elaborating and refining a new perspective generated by the inquiry.

The attendent emotional pattern is one of "equilibrium" with not a lot of attention to feeling states. The learner's relationships with others are likely to be in the light of his/her preconceived purposes and expectations also.

The divergence phase consists of the collapse of the learner's existing frame of reference as an adequate means for understanding some aspect of his/her experience important to him/her. It has been called "divergence" here because there no longer seems to be a meaningful link between concept and experience. This season of "non-fit" is accompanied by feelings of anxiety and tension, sometimes becoming very intensive. The learner finds him/herself in a preoccupying crisis of confidence. There is a simultaneous withdrawal from other persons (s)he associates with the source of confusion which prevades this phase. In this study, this season is relatively short, lasting typically several weeks when the learner apparently could not accept the existence of the confusion and upset. In these cases, learners became absorbed in attempts to find "causes" and/or to draft an immediate solution. Whether protracted or not, the end of the divergence phase is marked by two events. One is that the learner is able to identify the general nature of the problem and how it relates to him/her. Another is the re-establishment of contact with those from whom (s)he has been withdrawn.


1.0
4.5
2.8
2.5
3.2
2.2
3.6
4.0
2.0
1.1
1.8
1.25
1.4
1.6

MICROCOPY RESOLUTION TEST CHART

NATIONAL BUREAU OF STANDARDS-1963-A

The engagement phase begins with the learner being able to relax with the problem, confusion or puzzlement without having to resolve it or fully understand it. One person described this as being able to "throw away all assumptions and presuppositions and be sort of free floating". At this point the learner becomes directly involved with people, activities and materials in the sense that involvement is not mediated by detailed preconceptions. Rather there is an intuitively guided exploration in which decisions are made in the face of particulars, not in the light of a previous conscious plan. Perhaps the most dramatic feature of this phase is a series of collaborative insights or "convergence episodes" in which there is a connection established for the learner between a concept and an experience. This occurs in interaction with one or several other people. There is, then, a simultaneous convergence of idea and experience and of the learner with others. This experience is accompanied with a burst of excitement and satisfaction. With several of these experiences occurring, there tends to be a gathering of self-confidence as well as insights. The close of the engagement phase is signalled by a kind of pause or plateau in which learners reported being "withdrawn from the task". There was a simultaneous withdrawal from people the learner associated with the inquiry activity.

During the convergence phase which follows, there emerges a major synthesis, a new understanding, a sense of resolution to the inquiry issue which arose in the divergence phase. This new understanding is represented in a new conceptualization and is reflected in some new form of action taken by the learner. This major insight experience emerges abruptly out of some form of reflection and review by thelearner of his/her experiences to this point in the inquiry. There is a very dramatic quality to this event which is accompanied by a tremendous surge of satisfaction and confidence. While the events of the convergence phase occur when the learner is typically alone, the phase comes to a close when (s)he is able to share his/her discovery with other people who are significant to him/her in the light of the inquiry.

There is then a return to the consolidation portion of the detachment phase where the learner refines, elaborates and applies his/her new understanding.

It is important to note that only three of the eight learners completed the inquiry sequence as described here and that all learners has a pace and timing in this sequence which was unique to them.

One the next page, Figure 2 summarizes this inquiry sequence description in the form of what appear to be critical features of the process. That is, all of these features (except number three which is bracketted) seems to be necessary in order for the sequence to proceed.

LIMITATIONS AND POSSIBILITIES

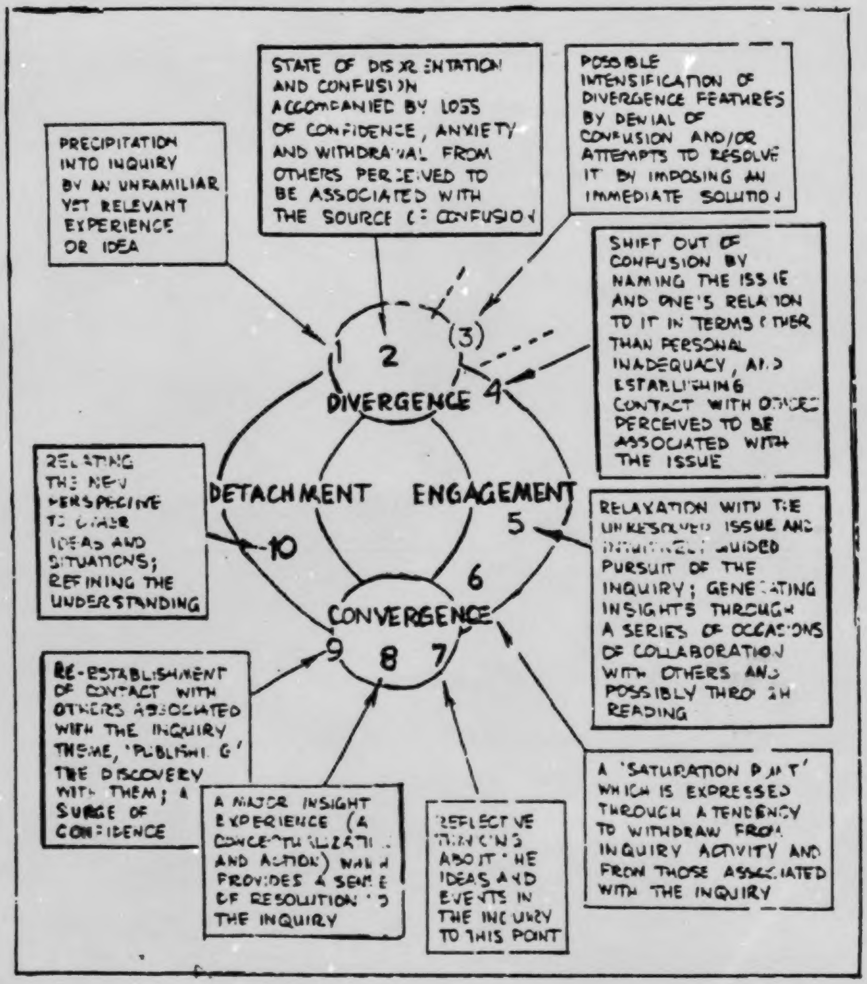
This conceptual formulation of the learning process is best considered as a "map" of a new "territory". Its primary limitation is that it has been constructed on the basis of experience in one setting by people with similar cultural and educational background. It will be interesting to see how the configuration is altered in other settings with different people and different learning themes. A major study of a similar kind has been planned for a management development program through which it is hoped that participants will become willing and able to assume extensive responsibility in their organisation. Another study which is being planned will explore people's experiences of mid-life transitions for similar perspective change patterns.

IMPLICATIONS FOR ADULT EDUCATION PROGRAMS

The common patterns of experience in coming to a new understanding which is integrated with action suggest some callenges to assumptions implicit in much adult education practice. Two which stand out for me are:

1. It is only near the end of a long process that we become conscious, able to name, the direction of our learning. The season of engagement begins only when we are able to relax without certainty as to an end state. By attempting to plan programs on the basis of asking learners to specify objectives at the outset, we are likely limiting the usefulness of such opportunities to that of consolidating old understandings, not comint to new ones.

FIGURE 2: Critical Points in the Inquiry Sequence


PRECIPITATION INTO INQUIRY BY AN UNFAMILIAR YET RELEVANT EXPERIENCE OR IDEA
STATE OF DISORIENTATION AND CONFUSION ACCOMPANIED BY LOSS OF CONFIDENCE, ANXIETY AND WITHDRAWAL FROM OTHERS PERCEIVED TO BE ASSOCIATED WITH THE SOURCE OF CONFUSION
POSSIBLE INTENSIFICATION OF DIVERGENCE FEATURES BY DENIAL OF CONFUSION AND/OR ATTEMPTS TO RESOLVE IT BY IMPOSING AN IMMEDIATE SOLUTION
SHIFT OUT OF CONFUSION BY NAMING THE ISSUE AND ONE'S RELATION TO IT IN TERMS OTHER THAN PERSONAL INADEQUACY, AND ESTABLISHING CONTACT WITH OTHERS PERCEIVED TO BE ASSOCIATED WITH THE ISSUE
1
2
(3)
4
DIVERGENCE
DETACHMENT
ENGAGEMENT
5
10
6
CONVERGENCE
9
8
7
RELATING THE NEW PERSPECTIVE TO OTHER IDEAS AND SITUATIONS; REFINING THE UNDERSTANDING
RELAXATION WITH THE UNRESOLVED ISSUE AND INTUITIVELY GUIDED PURSUIT OF THE INQUIRY; GENERATING INSIGHTS THROUGH A SERIES OF OCCASIONS OF COLLABORATION WITH OTHERS AND POSSIBLY THROUGH READING
RE-ESTABLISHMENT OF CONTACT WITH OTHERS ASSOCIATED WITH THE INQUIRY THEME, 'PUBLISHING' THE DISCOVERY WITH THEM; A SURGE OF CONFIDENCE
A MAJOR INSIGHT EXPERIENCE (A CONCEPTUALIZATION AND ACTION) WHICH PROVIDES A SENSE OF RESOLUTION TO THE INQUIRY
REFLECTIVE THINKING ABOUT THE IDEAS AND EVENTS IN THE INQUIRY TO THIS POINT
A 'SATURATION POINT' WHICH IS EXPRESSED THROUGH A TENDENCY TO WITHDRAW FROM INQUIRY ACTIVITY AND FROM THOSE ASSOCIATED WITH THE INQUIRY

2. During three out of four seasons of inquiry there are implied "significant others" for the learner, people with whom (s)he must be able to relate in order for his/her learning to proceed. In order to engage in and build momentum in an open-ended exploration, collaborative inquiry seems essential. "Self-direction" may be a very misleading term if what is implied is complete independence. While compatible with detachment phase functions of consolidating and elaborating, independence in isolation can impede inquiry where a new understanding is in the making. This would seem to have importance for distance learning programs as well as for designing learning in other settings.

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The Nominal Group Technique as a Participatory Planning Method in Adult Education

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PROBLEMS

The idea of including the adult participant in the program-planning process is not a new concept in adult education. Because experience is valued as a rich learning resource, adults should be allowed to participate in the design and implementation of their own learning activities. According to Knowles (4,5), adults have a deep psychological need to be treated with respect and to be perceived as having the ability to run their own lives. They tend to avoid, resist, and resent being placed in situations where they are told what to do and what not to do, talked down to, embarrassed, punished, or judged. Adults tend to resist learning under conditions incongruent with their self-concepts as autonomous individuals. Adults wish to have control over their lives, to be active and independent, to develop their abilities to the fullest, and to experience success and achievement.

Many benefits have been cited as flowing from situations where individuals are permitted to participate in planning and decision making. Among these are: (1) participants have a greater commitment to the learning experiences because they have helped in their creation; (2) participants may be led to recognize needs which before were not consciously felt; and (3) participants may experience, increased motivation as well as heightened feelings of competence and self esteem as a result of their involvement. In spite of the potential benefit and value of participatory planning, a lack of learner involvement in adult education persists. Without opportunities for participatory planning, learners in adult education are unable to derive the greatest benefit from the learning situation. The intent of this study was to implement a participatory planning technique and investigate its effects on participant achievement and attitude as well as its acceptability, efficiency and ease of use in an adult educational setting.

REVIEW OF LITERATURE

In reality, there exist relatively few empirically grounded studies in adult learning which actively define how to include the learner in participative strategies. As expressed by Cole and Glass (2), adult educators actually have very little other than intuition and experience to guide them in developing effective educational programs. In light of this void, it seemed feasible to investigate participatory planning strategies as used in business and industry in order to determine their utility in adult educational settings.

Of the numerous participatory planning techniques used in business and industry, the Nominal Group Technique (NGT) developed by Delbecq, Van de Ven and Gustafson (3) seemed to conform most closely to the principles of andragogy in that the format of this technique increases the opportunity for each individual to use their experiences as a resource. In addition, this technique lends itself to the time, logistical, and practical constrants so real in adult education.

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SAMPLE

The sample for this research was selected from adults participating in the Florida Credit Union League's Financial Counseling School conducted by the Florida State University. This school consists of a three step sequential curricula in counseling skills, credit union money management and developing professional abilities of the credit union employee. Participants attend a one week program each year for three consecutive years.

Fifty-six of the 104 participants who attended the Spring 1979 school constituted the sample for this study. Sample size was based on a desire for a statistical power value of at least .80 for analysis of convarianee tests and an effect size of .40. Random assignment of all participants to experimental and control treatments was made.

PROCEDURE

The research design used in this study was the Pretest-Posttest Control Group Design (Design 4) of Campbell and Stanley (1). As a means to design the learning objectives and activites for a 6.5 hour unit of instruction, two groups of participants were used to compare the use of Nominal Group Technique as a participatory planning process. Participants in the control group were given no opportunity to participate in the planning of the learning activity. The second or experimental group was allowed an opportunity to structure the objectives and the learning activities through the nominal group participatory planning technique. Both groups then participated in the sturctured learning activity as revised in light of results generated by the experimental group.

Due to the nature of the Pretest-Posttest control Group Design and the fact that the study took place over a three-day period, threats to internal validity were minimized. In considering threats to external validity, it is hypothesized that the interaction of pretesting and the treatment were not a factor in this study.

Data on the experimental variables, participant achievement and attitude as well as data related to the acceptability, efficiency and ease of use of the Nominal Group Technique were collected by menas of: (1) Pretest-Posttest measure; (2) Attitude Toward Nominal Group Technique Questionnaire; (3) Instructional Rating Form; and (4) Program Evaluation Instrument.

All participants in the experiment were administered a pretest prior to their involvement or non-involvement in the participatory planning process. In addition, participants in these groups were administered a posttest at the conclusion of the structured learning activity. The pretest was a 30 item test pool based on learning objectives identified by the NGT facilitator. Posttest items were selected from the pretest pool based on their relevancy to the structured learning activity as identified from the nominal group process. A reliability of .79 was obtained for these measures.

As a means to judge the acceptability, efficiency and ease of use of the NGT as a participatory planning process, participant responses were used assessed by an Attitude Toward the Nominal Group Questionnaire. A coefficient alpha test of reliability was performed with post hoc experimental data. A reliability of .84 was obtained.

To assess participant attitude toward the structured learning activity, the Instructional Rating Form was administered to all participants in this study immediately following the posttest measure. The Instructional Rating Form was adapted by the experimenters from the Student Instructional Rating System used by Florida State University. The reliability of this measure, .90, was determined post hoc using coefficient alpha.

A Program Evaluation Instrument was constructed as a means for participants to rate instructors in the Financial Counseling School. A 5-point scale was used to rate instructional performance in the areas: (1) effectiveness of presentation; (2) ability to communicate; and (3) opennessto questions.

RESULTS

A summary of the Pretest Measure for experimental and control groups is presented in Table 1. Data obtained from the pretest measure served to determine equivalency of groups. No significant difference, $F(1.54) = 1.57$, $p \geq .05$ was obtained. Based on this result, analysis of covariance was used to assess participant achievement on the posttest.

TABLE 1. --Analysis of Pretest Measure for Experimental and Control Groups

Group	Sample Size	Mean	df	Std. Dev.	F	Sig.
Experimental	29	14.86	1	3.10	1.57	NS $p \geq .05$
Control	26	15.92	1	3.17		

Posttest data is summarized in Table 2. significant main effects were found, $F(1.54) = 4.87$, $p \quad .05$.

TABLE 2. --Analysis of Posttest Measure for Experimental and Control Groups

Group	Sample Size	Mean	df	Std. Dev.	F	Sig.
Experimental	29	19.35	1	2.84	*4.87	Sig. $p \leq .05$
Control	26	18.04	1	3.66		

* adjusted value, pretest as covariate

The two measures to assess participant attitude are summarized in Tables 3 and 4. In the Attitude Toward the Nominal Group Technique measure, the overall item mean ($\bar{X} = 1.62$) was obtained on a scale where 1 represented a perfect score (most positive attitude toward NGT) and 5.0 represented the extreme negative attitude toward the technique. For the Instructional Rating Form, results of a one-way analysis of variance indicated no significant difference between the experimental and control group on this measure, $F(1.54) = 2.40$, $p \geq .05$.

TABLE 3. —Descriptive Statistics for Attitude Toward Nominal Group Technique Measure

Group	Mean	Standard Deviation	Reliability
Experimental N = 29	1.62	.35	.84

TABLE 4. --Analysis of Instructional Rating Form for Experimental and Control Groups

Group	Sample Size	Mean*	Std. Dev.	F	Sig.
Experimental	29	93.00	6.81	2.40	NS $p \geq .05$
Control	26	89.69	8.98		
Total	55	91.44	8.01		

*possible total score = 100

DISCUSSION

On the basis of findings from this study, it can be concluded that adult learners do not show a decrease in learning achievement and indeed show significant improvement in achievement when provided an opportunity to participate in their learning activities. Since much of the philosophy of adult education emphasizes the psychological need for learner self-determination, implementing a technique based on this premise which also aids achievement could certainly benefit adult education.

Failure to show significant changes in attitude toward the structured learning activity may have been due to the professional expertise of the NGT instructor. It is hypothesized that participants in both the experimental and control group recognized this quality. In addition, higher class attendance rates were observed for persons in the experimental group. This group may have recognized their own concerns being addressed more than those persons in the Control group.

Conclusions about the efficiency and ease of use of the NGT are also important. Since practitioners are reluctant to alter conventional decision making processes unless convincing evidence exists that another method is more effective, effect size was used as a measure of this importance. In this study a difference in magnitude of .40 was to be considered significant. A value of .36 was obtained form posttest scores. Though this result is lower than the pre-set value, the relatively small difference (.04) suggests that the NGT process may be worth the investment in time and energy.

The findings of this study also suggest important and practical implications for adult educators. The research demonstrated that the Nominal Group Technique was effective in the identification of learner needs and concerns. Use of the Nominal Group Technique required a minimal expenditure of time to implement. Additionally, this technique, requiring nothing more than a few sheets of poster paper and a marking pen, costs very little to use. Thus, the Nominal Group Technique can be easily implemented in lieu of more expensive and time consuming needs assessment devices. In addition, the Nominal Group Technique has the advantage of requiring a shorter time frame than structured interviews and extensive interest surveys. Moreover, as the study demonstrated, the Nominal Group Technique can be learned by adult educator instructors very quickly. Thus, it would seem important to include in future professional development programs for adult educators a session on the Nominal Group Technique and its use in designing more effective learning activities for adults.

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Toward a Theoretical Construct Applied to The Adult Educator as an Adult Learner

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> Theory building involves imagination that is exercised in a particularly rigorous way. Theory is an intellectual creation; scientific theories await invention, not discovery. The assumptions on which theories are based require ingenuity. (Research Methods in Social Relations, 1976)

To date, no learning theory nor developmental theory has taken into adequate consideration our unique and complex total composition, especially in our adult years. Disregarded has been the fact that our individual diversity increases as we mature. The theoretical construct being developed encompasses five crucial concepts, which include

1. the "total person" as a living, learning laboratory;
2. life events as learning lessons;
3. layering as a resource data bank;
4. stress as a prime motivator for change; and
5. unlearning as a vital, creative function

Applied to our growth throughout the life span, each one addresses a critical factor that influences the form and functioning of our personal adult learning process.

CONCEPT ONE: THE "TOTAL PERSON" AS A LIVING, LEARNING LABORATORY

Each of us is a "total person" consisting of two components that we all have in common, and a third component that highlights our individuality. Although distinctive from person to person, the two common components are (1) the sequential, developmental life processes that are on-going from birth to death, and (2) the intrinsic and extrinsic life forces that impact upon them. The third component consists of the major and minor, anticipated and unanticipated life events we experience in quantum throughout the life span. It is the compilation of these components--life processes, life forces and life events--that establishes our personal, living, learning laboratory.

Life Processes

In terms of the life processes, the propensity has been to interpret human growth in terms of chronological age and the configuration of a given state within that chronology. Given age and stage, we have managed to homogenize individuals rather than capitalize on their unique differences. At least six life processes can be identified as operating simultaneously, although at varying rates within each of us.

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They are

(1) The Body--our health, nutrition, and physical growth and development.
(2) Sexuality--our physiological and emotional response to maleness and femaleness as we mature.
(3) Learning--our adaptation to change through the acquisition and application of knowledge, skills, and experience.
(4) The Family--the establishment and maintenance of our household and its membership as its form and function evolve.
(5) Work--the labor we prepare for, cultivate, and modify for a livelihood.
(6) Leisure--our use of free time through recreation, social affairs, community activities, and the like.

Life Forces

The life forces provide the foundation for our personal attitudes, interests, values, and beliefs. Because of their intangible nature, the significance of the life forces has not been adequately recognized by either learning theorists or developmentalists. Yet it is the life forces that provide the glue for our character development and sense of personal well-being. At least twelve life forces influence our development over the life span, and along with the life processes, they are also operating simultaneously and at varying degrees of growth. They are

(1) Self--how we value ourselves as human beings in terms of how we see ourselves and how we believe others see us
(2) House--the past, present, and future aspects of our family, our relatives, and our heritage
(3) Ethnicity--the customs, language, and social views transmitted to us by the nationality and ethnology of our ancestry up to today
(4) Culture--the thoughts, the speech, the actions, and the material aspects of the society we are living in that influence us
(5) Religion--the attitudes, beliefs, and practices which relate to our faithful devotion to an acknowledged ultimate reality or deity
(6) Humanity--our recognition of the attributes of mankind, the universal commonality of man, that is, how we are all alike
(7) Time--how we measure the continuum of past, present, and future actions, sequences, or events in our development
(8) Space--the psycho-social areas we can move in, given our sense of self, house, ethnicity, culture, religion, and humanity
(9) Place--our sphere of influence based upon our position and location in our family, work and social environs
(10) Rhythm--the pace of our lives in terms of the flow of life events and our ability to synchronize them as we develop

(11) Nature--our sense of relationship with all other living things
(12) The Universe--the totality of our being, as reflected in the interdependence and interrelatedness of the world of human experience through the orderly, harmonious, and systematic integration of all the preceding eleven life forces

By adding the twelve life forces to the six life processes that continually push on our system, the magnitude of our complex composition becomes even more obvious. It should come as no surprise that in our constant efforts to handle all of our life forces and life processes, stress is a sustaining phenomenon present throughout our entire life time.

CONCEPT TWO: LIFE EVENTS AS LEARNING LESSONS

Life events are facilitators of change, and as such contribute significantly to our growth as a "total person" As life events occur, they naturally bring about change in our total life system. Life events can be classified into the following seven categories.

1. Absolute Life Events focus on our physiological development over the life span and are shared in common by virtually all human beings. These life events focus on stage development characterized by prolonged events such as puberty, adolescence, and middle age.

2. Predetermined Life Events concentrate on traditions and common practice. They are carried on by generations and societal or religious customs, encompassing life events such as confirmation, marriage, and Passover.

3. Planned Life Events focus on accomplishing a designated task or achieving a special goal. Incorporated within these life events are the processes involved in reaching a desired end. They include getting a promotion, purchasing a home, getting a degree, and even going on a cruise.

4. Compelling Life Events involve experiencing repeatedly an irresistible urge or overwhelming pressure developed over time that causes us to act out as if directed to do so. These life events actually address adverse habits we have cultivated and represent somewhat compulsive behavior, such as overeating, nailbiting, and smoking.

5. Counteractive Life Events focus on our taking part in actions that are contrary to what is expected or desired. Life events such as eloping, failing a course, or being fired from a job fall into this category.

6. Spontaneous Life Events encompass the voluntary, impulsive and unanticipated actions we participate in over which we appear to have no control. These life events include falling in love, getting a speeding ticket, and misplacing car keys.

7. Random Life Events are those we do not anticipate and over which we truly have no control. They occur haphazardly and accidentally, and include episodes which as having an automobile accident, getting stuck in an elevator, or having a flight cancelled in transit.

The sequence, the configuration, the response set, and the ultimate outcome of each life event experienced is unique to the individual and cannot be duplicated by any other person. We are constantly building response patterns to life events. This building process allows us to transfer response patterns from past life events we have undergone to new life events we are now encountering. We can examine, handle, and learn from our response patterns to given life events through the use of a five-step sequence. The sequence involves

> Step One: Identification--occurs when we recognize a life event we have experienced by acknowledging it;
>
> Step Two: Selection--occurs when we choose a response or set of responses to the life event from our available repertoire of responses in keeping with our sense of self;
>
> Step Three: Performance--happens as we act out our selected responses and thereby determine the appropriateness of fit;
>
> Step Four: Modification--takes place by practicing and making changes in our selected response set to accommodate our interpretation of the life event; and finally
>
> Step Five: Adoption--when through repeated performance of the selected response or set of responses, modification is completed as the action becomes part of us and adds to, or further reinforces our repertoire of responses.

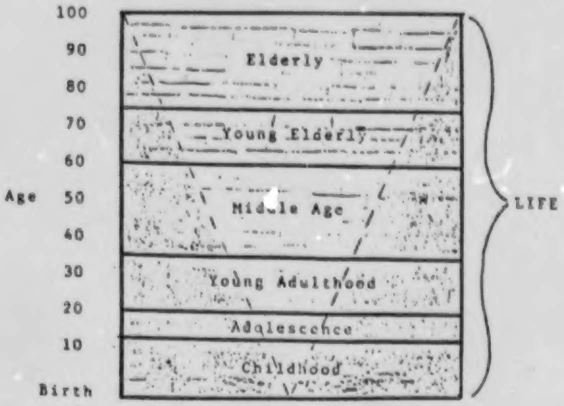
Through this sequence, the life events we experience facilitate the use of our learning capacities as we express our feelings, attitudes, and beliefs; examine them; practice them; and alter them in keeping with our developing self. As we experience life events, we develop our decision-making capacities and our problem-solving abilities. It is through these two operations that we opt for certain responses and discard others. We simply keep what seems to work for us.

CONCEPT THREE: LAYERING AS OUR RESOURCE DATA BANK

In conjunction with interpreting life events as learning lessons, a special dimension of our developmental process is one that can be referred to as layering. As life events make up our learning lessons, so layering serves as our resource data bank. Virtually all developmentalists describe and define our progress through the life span on a linear basis. Ignored, but occurring simultaneously with our linear progression is the vertical building that occurs as we experience our life events. Layering actually focuses upon our accumulating, sorting through, and storing our attitudes, beliefs, knowledge, values, feelings, skills, and behaviors as we develop. It is a building process based on the premise that as we proceed through our ages and stages, we collect the various pieces of our lives, and save them for future reference.

Figure 1

The Layers of Life



As each life event occurs, it contributes to that particular stage in life, and each stage represents a building block in our development. As we progress through each stage we add a block on top of the one preceding it, and so on through our entire life span. If you can, imagine life as a monolith in which each stage is a block, one building on top of another, suppressing further the ones beneath. Add to that structure an inverted pyramid with its tip in the first block. (See Figure 1.) It reveals the weight that each block of our development carries as we mature, each one carrying more weight than the one preceding it. Within the pyramid are those pieces of our lives that have been considerably more prominent in influencing our direction, than those pieces outside of the pyramid. Yet, all of these pieces, whether inside or outside of the pyramid, remain with us throughout our life time.

CONCEPT FOUR: STRESS AS A PRIME MOTIVATOR FOR CHANGE

Stress is also part of life events. Every life event we experience involves a sequence that contributes to some form of tension. How we anticipate the life event, interpret it, respond to it, and perceive ultimate outcomes relating to it involves a range of stress reactions. This is true for both major and minor, traumatic and nontraumatic episodes. In terms of capitalizing on the stress we experience throughout our life time, especially in our capacity as adult learners, we need to (1) acknowledge that in today's world, there is no such thing as stress free living; (2) recognize that stress is constant, and that it is complex; (3) realize that it is a dynamic, motivating force; and (4) understand that it contributes to both learning and unlearning.

Within the context of life events as learning lessons, we can manage stress by applying one of four approaches. These alternatives involve learning to (1) change the stressful environment; (2) manage potentially stressful situations; (3) develop alternative responses and solutions to stressful circumstances; and (4) generate a variety of options for avoiding stressful experiences.

CONCEPT FIVE: UNLEARNING AS A VITAL, CREATIVE FUNCTION

In terms of unlearning we need to acknowledge the reality of those inhibiting learning patterns of the past that no longer nurture or facilitate personal life skills. Our ability to unlearn also contributes to how we manage stress. Important to nurturing our adult learning potential is our willingness to forego those learning patterns that are inadequate as we develop new learning models that will stimulate our learning capacities and abilities. Most of us are locked into a mind set that has kept us from fully acknowledging ourselves as developing individuals living lives filled with new dimensions to learning experiences. The function of unlearning does not mean to imply that we erase what has been learned, but rather that we undo and redirect obsolete, past learning which is no longer useful or that poses an obstacle, to new and useful means. Five intrinsic motivational factors that contribute to a willingness to unlearn involve the following. (1) learning for relevance, (2) learning as a resource, (3) learning for satisfaction, (4) learning for adaptation, and (5) learning for personal worth. Unlearning encompasses both creative functioning and motivational factors that contribute significantly to fostering our adult learning potential. Two other critical aspects include self-examination and self-awareness.

CONCLUSION

Throughout the life span, we continue to function as both learner and educator. The classroom we operate in is our total living environment, including the world and the universe. The learning laboratory we use is our own life in which we continue to experiment for satisfactory outcomes. The learning lessons are the life events we experience. We also are motivated by the stress that we perceive. The methodologies we use involve (1) our responses to stress and life events, especially those that have contributed to the response set we are prone to use, and (2) unlearning, by reshaping our inappropriate and inadequate responses into more useful and effective ones. Crucial to the life satisfaction and the quality of life we seek is the ability to maintain receptivity to change and the capacity to adapt to it.

Using the Life History as a Prime Research Tool

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INTRODUCTION:

Adult educators who have a research interest in comprehensive studies of communities may be acquainted with the remarkable community development tradition in sociology. This tradition arose and flourished in Chicago from 1914 - 1933 under the leadership at the University of Chicago of a former newspaperman, and sociologist, Robert Park.

One of the methods used extensively by those involved in the sociological research of the community was the life history method. The method is marked by the advent in 1918-20 of a prodigious work in five volumes by W.I. Thomas and Florian Znaniecki titled, The Polish Peasant in Europe and America. (1) The result of several years of investigation, the work composed a study of the impact upon Polish peasant groups influenced by the new individual system after their immigration to America and Germany. The work consists of the analysis of autobiographical material, family letters, newspaper files, public documents, and institutional records. Volume Three, however, is of particular interest because it is one of the earliest instances in which sociologists used an autobiography or life history for sociological analysis. At the time of its publication, Thomas claimed that such personal documents constituted "...the perfect type of sociological material..." (2).

So excited were the leading social scientists of the day as to the practical use of the life history that a discussion of The Polish Peasant became the focus of the symposium sponsored by the Social Science Research Council in 1938. The symposium was the first time in which the problem of analyzing the life history (as well as other personal documents) was grappled with in a serious way among a professional public.

The outcome of the symposium is felt by some sociologists today to be a land-mark in sociology in that it marked a trend to be followed by other social sciences as well: a falling-out with the subjective, qualitative, intuitive, interpretative, verstehen orientation of the early twentieth century in favour of an increasing emphasis upon objective and quantitative techniques requiring increased scientific vigor. It is the belief of sociologists Barney Glaser and Anselm Strauss (3) that this occurred because the symposium chairman veered the discussion towards a verification of hypotheses rather than toward a generation of theory. This latter emphasis is, in their view, the real strength of qualitative materials.

The death of the community studies research tradition and the trend towards quantitative methods consequently has meant that the years since the symposium have shown a not very impressive use of the life history, and little discussion of the problems of its use. In 1930, sociologists Cavan, Hauser and Stouffer published an article on the statistical treatment of life history material (4). The article demonstrated that while such material could be treated in a quantifiable way because consistency of coders was possible, doubt was expressed concerning the economy of doing so. Alternatively, questionnaires were seen as preferable sources of statistical data. The life history, after an auspicious start in America, seems to have been laid to rest along with the community study tradition in Chicago. The problems associated with its use, as well as its awkwardness for use in "scientific" investigation, has meant that the life history has had but little use as a prime research method.

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Today, however, there is a resurgence of interest in the subjective. Most of the social science disciplines have been influenced, to a greater or to a lesser extent, by a more phenomenological stance -- that is, by methods and analyses which tend to be purely descriptive. Such analyses, while they may be said to be empirical are not scientific in the same sense that the nature of empirical science is usually understood. Phenomenological, ethnomethodological, and symbolic interactionist approaches tend toward interpretative analyses of situations based upon the experiences and the perceptions of those experiences by the interactant.

With this interpretative stance, one's everyday life is viewed as a social reality interpreted by men and women and subjectively meaningful to them. With such a position, each person experiences his or her own reality of everyday life. To the extent that individuals interact within a framework of shared social experiences, their perspectives and views of reality will tend to be similar.

The sociologist, Alvin Gouldner (5), has observed that there are aspects of social reality which tend to be relatively unknown and hence publicaly neglected because they are dissonant with the conceptions of reality held by the powerful and the respectable. The task of the researcher is to penetrate the reality of that everyday life as it is perceived by groups of people. The researcher must then interpret and present the reality of that life to others whose own personal reality may differ, as may their view of the reality experienced by others. One could argue that this should be a major task of adult education researchers if indeed an aim of adult education is to extend educational programs to new market groups and to develop new programs to reach those who view the present array of programs as irrelevant to their lives.

This paper presents briefly my experiences of delving into the methodological problems of the life history method. Specifically, the method was used to explore the worlds of women contained within selected occupations.

Why the Life History Method was Chosen for the Study of Women

Currently there is among women an avid interest in descriptive and subjective accounts which document the experiences and the perceptions of women arising from those experiences. Much of this interest undoubtedly has been influenced by a heightened recognition that the public culture, arising from such facets of life as politics, education, art, work, and organizations is largely a masculine one and as such is not shared necessarily by many women.

Because of the comparative exclusion of women from the public world, one can argue that the private world, a world of the personal, may be felt by women as a legitimate sphere of expression. For example, the writer Anais Nin (6) tells us that diary writing as a tradition among women can be traced to the year 900 B.C. in Japan when women had no way to express what they felt except by writing diaries. The women hid their diaries inside their pillows which is why the diaries came to be called "pillow books." Thus it seems likely that diary writing for women from early times has played an important part in women's development. Because of this tradition of women recording their feelings in writing, it was felt the written life history could be a valuable research tool.

What was Done:

Written life history accounts were requested from women in training to become audiotypists in "Milton", a city in the north of England, and from a comparable group of women in training to become dictatypists (an American synonym for audiotypists) in "Crowfoot", a city in Western Canada. Written life histories were also requested from medical physicians in both countries. However, interesting methodological problems precluded the physicians from being able to write life histories.

The focus of this study was to ascertain in what ways each of the groups defined the meaning of "achievement" for their lives. This was done by looking for the shared perspectives of the women which developed through their sharing of similar life experiences.

METHODOLOGICAL CONSIDERATIONS

Although there has been some writing about the use of first person or autobiographical material, and in particular, the life history, there has been surprisingly little. Discussion of some of these research concerns may be of interest to adult education researchers. What is a life history? Does how the material is collected affect the contents obtained and hence its interpretations? What kinds of people are best suited to the life history, and what motivates people to write life histories? How does one analyze life history material?

What is a Life History?

Life history may have different meanings depending upon one's discipline and one's perspective within that discipline. For example, anthropologists who perhaps have had the longest and most extensive use of life history, see the life history as a kind of personal document which may be composed of both autobiographical elements (first person descriptions) or biographical elements (third person descriptions). Similarly, the psychologist may construct a life history from "...any self revealing record that intentionally or unintentionally yields information regarding the structure, dynamics and functioning of the author's mental life." (7) Hence, autobiographies, questionnaires, verbatim recordings (interviews, dreams, confessions), diaries, letters and expressive and projective documents might all be used to construct a life history.

Medicine employs the term "taking a history" and looks at the past history of the illness in order to diagnose, to predict the future course, and to decide on intervention. The usual way of taking a life history is for the physician or clinician to ask a series of standard questions of the patient and then to record carefully the answers. Hence, in medicine, the life history is given orally by the subject and obtained from a series of questions. Facts or concerns unrelated to what the physician considers as outside the boundaries of the treatment role tend to be ignored by the physician who thus controls the kind of content revealed by the patient.

As this life history model was embedded inevitably in the minds of the female physicians, I believe it had important implications for the difficulties experienced by the physicians in my study being able to write their own life history. In contrast to the history obtained by a structured interview as was their usual want, the physicians were asked to respond to an unstructured request to give a life history of themselves. This differed from the controlled and structured life history model which physicians normally request of their patients. The physicians may have felt uncomfortable about complying with this request, although many expressed a willingness to be interviewed with an interview schedule.

In sociology, there appears to be no tradition as to what constitutes a life history. Although the early sociologists using a life history method seldom described their collection procedures, it seems that written autobiographies, interviews, diaries, and records, were probably all used, and called life history materials. The contemporary sociologist, Norman Denzin (8), would seem to hold a similar view. He claims that:

> Life history materials include any record or document including the case histories of social agencies, that throws light on the subjective behaviour of individuals or groups...a careful transcription of an interview provided it does not intermix with the interviewer's own interpretation, is as much a form of life history data as is a personal diary. (emphasis added) (9)

Does How the Material is Collected Affect the Contents and Hence Its Interpretation?

How the material is collected necessarily must affect the contents and hence its interpretation. Hence, I would disagree with Denzin that case histories of social agencies or even careful interviews should be viewed as life histories. As an ideal type, the life history may be seen as the perspective of *one person* only, that of the person presenting his or her life history. Those contributing case study information, such as social workers, presumably would contribute a different perspective.

The imposition of structure by an interviewer's questions necessary must affect a person's presented view of his or her life. Interactionist theory predicts for us the inevitability of an interviewer either consciously or unconsciously affecting a life history. For this reason, I have concluded that life histories may best be obtained by asking people to write and to structure their life histories, giving them but minimal directions as to what to include. Such an approach would seem to have the best chance of allowing the respondent to give the perspective of the important dimensions of his or her life rather than to respond to dimensions which the researcher has decided *a priori* are or should be important.

Nevertheless, tension between the perspective of the writer of the life history and the perspective of the analyst must exist. This is because the analyst necessarily must present the perspective of the writer through his or her research eyes. Clearly, the analyst's view can be but an *interpretation* which others must assess as plausible on the basis of their experiences and the experiences and writings of others on the topic.

Why do People Write Life Histories? What Kinds of People are Best Suited to the Life History?

The psychologist, Gordon Allport (10) has compiled a comprehensive list of motives for the writing of personal documents; special pleading, exhibitionism, a desire for order, literary delight, securing a personal perspective for self analysis, a relief from tension, for monetary gain, as a class assignment, assistance in therapy, for redemption and social reincarnation, for scientific interest, for public service and example, and as a desire for immortality.

Such motives probably arise because of social systems which promote the value of individualism. The social historian, Alan MacFarlane (11) notes that the first English autobiographies appeared in association with a rise in individualism. But what about those who tend not to view life in individualistic terms? The anthropologist, Leslie White, (12) tried to collect life histories from the Pueblo Indians. He reported that "...to get life history information from the Pueblo is as easy to get as from an automobile tire".

Other kinds of difficulties were experienced in my study. The less experience the women had with professional socialization the more likely they were to write a life history. Numerous possible explanations are possible. It may be that professional socialization encourages the professional to monitor out personal aspects and hence see such requests as less legitimate. It may be that the unstructured nature of the life history request does not fit the more structured and sophisticated terms of reference of professional groups.

In contrast to the physicians, the audiotypists and dictatypists seemed to find it relatively easy to write a life history. They generally seemed pleased that anyone should express an interest in their lives. Many of them expressed hope that their stories would help others. One interpretation of the relative ease with which the secretarial groups responded to the request may be reflected in their sense of social power through the exposure of their lives to others. Thus the written life histories may have been viewed by them a chance for them to help or to influence, even in a small way, either individuals or public opinion and policy makers.

How Does One Analyze Life History Material?

A major principle in analyzing life history material is that most of the major concerns of scientific investigation are probably inappropriate for analyzing life history material. Questions of reliability and validity take on new dimensions when the purpose of the study is to obtain the perceptions of the world of those studied.

For example, while deviations by others from the reality as perceived by those under study are important for comparison purposes, one can never question the reliability of the person's perception of his or her world. What one is really interested in is the degree to which their perceptions of their reality _do_ _not_ agree with those of others. As W.I. Thomas notes:

> If men (and women?) define situations as real, they are
> real in their consequences (13)

A second principle of analyzing life history material relating to validity concerns the importance of recognizing the possibility and inevitability of multiple interpretations. While life history material can give remarkable insights and understandings, the fragility and illusionary nature of the insights, which are major strengths of the material, do not lend themselves to "hard" analysis but rather toward delicate and tentative interpretations.

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The Relationships of Field Independence-Dependence Cognitive Styles with Managerial Disposition

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INTRODUCTION

The premise of this study was based on an idea posited in 1960 by Douglas McGregor in The Human Side of Enterprise and appropriately paraphrased by Edgar H. Schein in which he contended that leaders "react not to an objective world, but to a world fashioned out of their own perceptions, assumptions, and theories of what the world is like" (McGregor, 1967, p. xii). That is, what the manager believed dictated how he or she interacted with subordinates.

Carrying the thought one step further, it was inferred by this author that the field independence-dependence cognitive style of an individual influenced the assumptions he or she made about the nature of human beings, thus resulting in a particular managerial style. In addition, it was believed that other continuously occurring variables of age, years of on-the-job supervisory experience and years of formal education interacted in the belief-forming process to create a complex set of relationships which singularly or in concert influenced how one managed.

THE PROBLEM

The intent of this study was to investigate the extent to which several independent variables including field independence-dependence (FI-D) cognitive styles, age, years of on-the-job supervisory experience, and years of formal education of industrial foremen influenced their basic managerial disposition, the dependent variable as indicated by preferences to form Theory X and Theory Y sets of assumptions. The subjects consisted of 227 first-line foremen employed at a heavy industrial manufacturing facility.

The similarity in social attributes among various groups of individuals defined by McGregor (1960) and Witkin (1962/1974) was noted. Perhaps it could be inferred that a person possessing characteristics of FI-D followed predictable leadership patterns such as those outlined by McGregor.

From a social standpoint, it was hypothesized that the field dependent person would be influenced by a need for interpersonal relationships (Theory Y oriented) and show a strong interest in others. The field independent, being impersonal and not interested in others, would most likely utilize Theory X approaches to leading.

Viewing the matter from a perceptual point of view, however, opposite relationships seemed possible. The literature offered by Witkin could also suggest field dependent persons might tend to be Theory X oriented.

In the perceptual case, the field dependent person would find the need for structure more accommodating and function under Theory X sets of assumptions. Conversely, the field independent, possessing high structuring characteristics, might find the Theory Y approach desirable. Field independents might find that setting goals and manipulating subordinates to attain organizational goals as a challenging aspect of leadership roles.

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REVIEW OF LITERATURE

Several research studies had reported various levels of relationship between managerial leadership styles and FI-D attributes of different populations (e.g., Gruenfeld & Arbuthnot, 1968, 1969; Gruenfeld & Weissenberg, 1974; Kavanagh & Weissenberg, 1973; Templer, 1973; Weissenberg & Gruenfeld, 1966). It appeared that each of these studies concentrated on the connection between the Ohio State Leadership dimensions (Stogdill & Coons, 1957), Fiedler's Co-Worker Scale (Fiedler, 1967) and field independent-dependent subjects.

A review of literature since 1964 revealed that perhaps a functional relationship existed between supervisory leadership behavior and the "organismic" attribute of FI-D. Therefore, it was inferred that FI-D attributes might be related to leadership dimensions which in turn were linked to McGregor's theories.

THE DESIGN

The research design followed a field study approach. Six statistical hypotheses were devised prior to the study which reflected the predicted relationships. The primary two-variable relationship was:

H_1: There was no significant linear relationship between field independence-dependence tendencies of industrial foremen and their preference to form Theory X and Theory Y sets of assumptions.

The primary multiple variable relationships were stated as:

H_5: There was no significant relationship between the combined effects of field independence-dependence tendency, age, years of on-the-job supervisory experience, years of formal education of industrial foremen and their preferences to form Theory X and Theory Y sets of assumptions.

And,

H_6: There was no difference in the tendency of field dependent industrial foremen to form Theory Y sets of assumptions or field independent industrial foremen to form Theory X sets of assumptions.

METHOD AND PROCEDURES

All participants were asked to complete the Group Embedded Figures Test and the Managerial Philosophies Scale. Total population raw values on measures of FI-D, age, years of on-the-job supervisory experience, and years of formal education of the foremen were compared to standardized values of managerial disposition. Stepwise multiple regression and multiple discriminant analysis techniques were used to analyze the potential multiple variable relationships. Subsidiary studies were implemented to investigate such characteristics as instrument test/retest reliability, validity, and linearity of relationships. Several other post-study investigations were performed to: (1) account for unexplained variance in managerial disposition, (2) identify a stronger FI-D relationship with managerial disposition by controlling one variable, and (3) isolate test items which could influence the alleged relationship between FI-D and managerial disposition.

RESULTS

The results in Table 1 show a significant, though marginal, relationship between FI-D and managerial disposition, $r = -.168$, $p < .0114$.

Table 1

Zero Order Correlation Coefficients Among Independent and Dependent Variables of Foremen Population

Variable[a]	SCS	GEFTSC	YOEX	YOFE
GEFTSC	-.168*			
YOEX	.103	-.136*		
YOFE	-.264**	.283**	.089	
AGE	.069	-.263**	.623**	-.096

Note 1. n = 227 cases.
[a] SCS = Standardized Composite Scores from Managerial Philosophies Scale; GEFTSC = Group Embedded Figures Test scores; YOEX = Years of on-the-job supervisory experience; YOFE = Years of formal education; AGE = Current age of foremen in years.
* $p < .05$.
** $p < .0001$.
Note 2. SCS is the sum of Standardized Theory X and Theory Y Scores.

Also, there was a significant linear relationship between years of formal education of foremen and managerial disposition levels, $r = .263$, $p < .0001$.

Furthermore, the results of multiple variable analysis, as indicated in Table 2, show the combined effects of cognitive style (FI-D), age, years of formal education, and years of on-the-job supervisory experience on managerial disposition of industrial foremen yielded an $R^2 = 9.56$, $F\ (4,222) = 5.86$, $p < .0002$.

Table 2

Foremen Population--Multiple Regression Analysis:
R^2 and Source of Regression Error/Values

Source of Variation	*Df*	*MS*	*F*	R^2
Regression	f	539.90		
Error	222	92.07		
			5.86*	.09555898

* $p > .0002$.

Approximately 9.56% of the dependent variable variance was accounted for by the independent variables in concert while cognitive style made a nonsignificant contribution to R^2, $B = -.18$, $F = 1.86$, $p > .05$. These results are confirmed in Table 3.

Table 3

Foremen Population--Multiple Regression Analysis:
Overall Contributions of Independent Variables
in Predicting Levels of Managerial Disposition

Variable	*B* Value	*SE*	*F*
GEFTSC	-.18	.13	1.86
AGE	-.09	.08	.97
YOEX	.27	.13	3.95*
YOFE	-1.23	.32	14.73**

Note 1. See Table 1 for explanation of variable abbreviations.
Note 2. $n = 227$ cases.
* $p < .05$.
** $p < .0002$.

A discriminant analysis of group delineation yielded inconclusive results. Years of formal education and years of on-the-job supervisory experience were primary discriminators that predicted Theory X or Theory Y groups, thus yielding a canonical correlation of .216 $p < .005$.

CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

The results indicated that field independent foremen had more formal education which might have affected the types of leadership patterns they preferred -- Theory Y sets of assumptions. On the other hand, field dependent foremen had less formal education which might have affected the types of leadership patterns they preferred--Theory X sets of assumptions.

The observed relationship as shown in Figure 1 between FI-D cognitive styles and managerial disposition was similar to the perceptual model discussed.

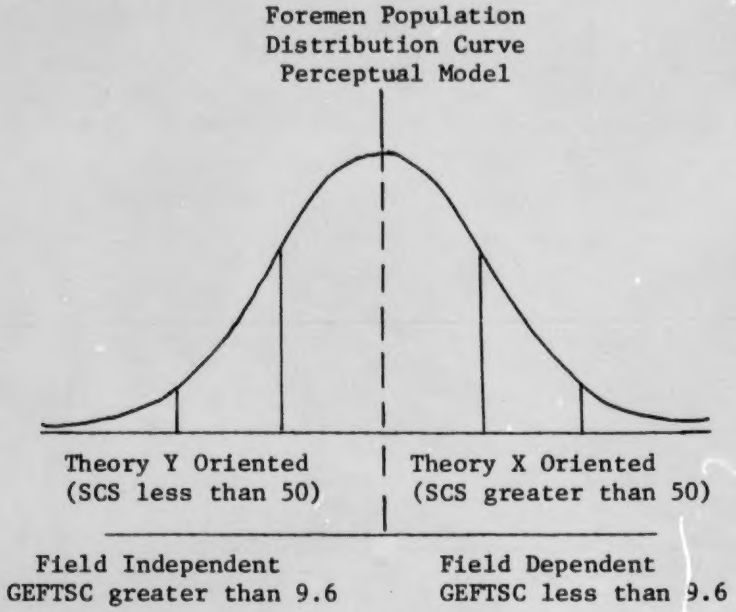
Foremen Population
Distribution Curve
Perceptual Model
Theory Y Oriented
(SCS less than 50)
Theory X Oriented
(SCS greater than 50)
Field Independent
GEFTSC greater than 9.6
Field Dependent
GEFTSC less than 9.6

Figure 1. Observed overlap of McGregor's assumptions and Witkin's differentiation concepts.

In this case field independents are Theory Y oriented and field dependents are Theory X oriented. Also, the results seemed partially consistent with earlier research comparing structure and consideration dimensions of leadership and FI-D cognitive styles performed by Weissenberg and Gruenfeld (1966).

The cited relationships began to explain why supervisors manage the way they do. Perhaps methods of interfacing supervisory requirements with the cognitive style and attained educational levels of a person could lead to better communication systems with employees and improved job performance. Also, relationships identified here could provide a model upon which awareness and instrumented training of managers could be implemented to encourage behavioral change in an organization. The data adds to the body of knowledge surrounding management development strategies and potentially provides an organization with a practical means to improve managerial assessment practices, career counseling, and job placement methods for industry.

Finally, this study should be replicated outside the industrial environment to observe external validity of the results. In addition, a multiple variable path analysis format should be designed to begin investigation of causal relationships among FI-D characteristics that influence managerial disposition. Hierarchical models in this analysis should be created which will refine predictability of managerial disposition.

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A Delphic Perspective on Lifelong Learning in Minnesota: Focus on the Public Library as Provider

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When lifelong learning is discussed, a role for public libraries is frequently absent. However, legislators, educational organizations, professional associations, mass media and the American public are recognizing that people need lifelong learning in order to adjust to accelerating change, prevail against occupational obsolescence, and relate to new values and life styles.

On the national level, Congress has found that the American people need lifelong learning in order to develop their potential for personal well-being, upgrading of occupational skills, and participation in the civic, cultural and political life of the nation. Congress has also noted that learning takes place through formal and informal instruction, and through the efforts of nonformal providers. The mandate is given that more effective use be made of the resources of the nation's educational institutions (Public Law 94-482, Oct. 12, 1976). Also, the National Endowment for the Humanities has designated two million dollars for fiscal year 1979 for distribution under the Learning Libraries program (American Libraries, February 1979).

On the state level, lifelong learning was a strongly endorsed project (1975) of the Minnesota American Revolution Bicentennial Commission (chaired by Lt. Gov. Perpich) and a human development program reported and recommended to the Minnesota Legislature (1977) by the Commission on Minnesota's Future (appointed by Gov. Wendell Anderson) (Faricy, 1978).

However, when the Minnesota State Planning Agency, in its document entitled, Alternatives for Lifelong Learning in Minnesota: the Nonformal Educational Sector (1976), identified the major nonformal providers--libraries were not included within the scope of the report. In addition, the report prepared by the Lifelong Learning Project, Lifelong Learning and Public Policy (U.S. Dept. of Health, Education and Welfare, 1978), lists sources of education and learning in the United States, yet libraries again are not included (even though mentioned earlier in the report as an existing institution offering accessible, low cost opportunities).

Therefore, although national and state interest in lifelong learning is high, it is very clear that a confused perception of libraries as educational providers exists.

What are libraries currently doing in terms of adult education? The American Library Association has recently established a new section to focus on alternative education and the adult learner. Since the early 1970s, under the initial auspices of the College Entrance and Examination Board (Mavor, 1976), a succession of public libraries across the nation have implemented Learner's Advisory Service, which assists self-directed adult learners in independent study projects. The newest developments are the emergence of educational brokering or educational information and referral services offered by public libraries (Dyer, 1978), and the program created by designated Learning Libraries funded by the U.S. Department of Health, Education and Welfare (Library Journal, July 1977). Libraries also serve as College Level Examination Program--CLEP--testing centers (Martorana, 1975) and cooperate with local colleges in offering traditional classes (Library Journal, July 1977).

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Yet no great vision of library participation in lifelong learning has been articulated. The many library programs, while individually impressive, have apparently not penetrated the awareness of state and national legislators. In addition to this external lack of awareness, debate exists within libraries and among library personnel as to whether the public library has a mission as an educational institution (Monroe, 1976).

In an effort to determine potential public library involvement in the lifelong learning movement, this study has used the Delphi Method to focus on the public library as a provider of lifelong learning in Minnesota.

METHODOLOGY

The Delphi method was pioneered in 1953 by Norman Dalkey and Olaf Helmer at RAND Corporation. Their research into consensus through the use of expert opinion developed into the Delphi process, which is noted by: 1) anonymity; 2) iteration and controlled feedback; and 3) statistical group response. However, the Delphi Method has a different research epistemology than standard survey techniques, and focuses on the generating and gathering of cultural information in a mode similar to a conference by mail. In the Delphi technique, problem-solving is approached through application of group intuitive expertise. Panelists are required to respond individually and anonymously to several administrations of the same questionnaire statements. Between these rounds, statistical feedback concerning both individual and group response is provided to each panelist. Opportunity to change responses is present throughout the process.

In this study, Delphi was used to suggest what changes would take place before the year 2000 in both society and the public library, and in what specific time period. Other considerations were the likelihood, impact, importance, and desirability of each change. Finally, panel confidence in these forecasts was assessed, and groups that would promote and hinder each change were identified.

PROCESS

Five interest groups were identified as having a potential impact on the lifelong learning component of public library futures. These groups were information systems specialists, adult educators, representatives of funding sources, library users, and library practitioners. Criteria for selection included professional affiliation, professional association involvement, geographical distribution, job description, and policy-making capability. An initial panel of 50 persons, representing the five interest groups, entered into the Delphi experience.

Round 0, an open-ended questionnaire, asked the panel to respond with change statements reflecting four social issues categories and four library-specific categories. A ninth category was allowed for statements unsuited to other categories.

The responses received from Round 0 were synthesized into the change statements which formed Round I. Four questions were asked concerning each change statement: likelihood/probability; panelist confidence concerning personal judgment; dates of both prototype and general occurrence; and desirability.

In processing Round I and preparing Round II, the median and inter-quartile range were computed from the Round I responses and marked on photocopies of Round I for return to the panel, along with a compilation of panelists' comments. Panelist suggestions concerning splitting statements and adding headings were considered and implemented. Two additional questions were added in Round II: importance to libraries and lifelong learning, and impact. Where a panelist's responses for Round I fell outside the inter-quartile range, notation was made in red on the photocopy included in Round II, and rationale for those positions was requested.

In Round III, the Round II responses were processed in similar fashion to Round I. In addition, the median and inter-quartile range were re-computed for Questions 1-4 to reflect changes of opinion, and this revised feedback was marked on each panelist's photocopy. Only one additional question was added in Round III: Which one (of the listed constituency groups) will most promote and which one will most hinder? When Round III was returned to the panel, several enclosures were appended: The "Minority Report" representing the rationale of those panelists holding positions outside the inter-quartile range; optional comments; an evaluation form; a brief demographics questionnaire; and an invitation to a one-day wrap-up conference.

FINDINGS

The change statements were divided into six major groups each having two to four sub-divisions. The major groups included: Social and Economic Change, Work and Leisure, Technological Advances, Information-Based Society, Education, and Governance/Funding. Findings for each sub-division were reported in four sections: 1) tabular presentation of all data in per cent; 2) a narrative description of high probability/high impact events; 3) a scenario depicting a possible future, based on the panel's ratings; and 4) a discussion of implications for public libraries.

CONCLUSIONS

This study was designed to secure information concerning lifelong learning and public library futures in the State of Minnesota. The utilization of the Delphi technique as the methodology in the study and the findings of the study led to the following conclusions:

1) The Delphi panel perceives a rapidly changing society with pluralism and choice as the key concepts for the next twenty years.

2) The panel was enumerated a variety of ways in which public libraries can become effective in the lifelong learning enterprise. These avenues represent both dynamic and support systems, and would involve changes in administration, library education, collections, and library education, collections, and library operations.

3) The projected time lines indicate a five to ten year lag between societal change and library response.

4) A significant percentage of the panel has declared uncertainty on major concepts of the library's: a) response to citizen needs; b) implementation of technology; c) internal perception of the educational role; and d) response to change. This implies that libraries will change only under pressure and will probably not realize the dynamic, risk-taking leadership potential.

5) Cooperation among providers of education is essential in this world of diminishing resources. Duplication of service is a luxury which can no longer be afforded.

6) The pedagogical effect of the Delphi experience on panelists has been impressive and beyond expectations. Both written and verbal feedback from panel members have emphasized several results: a) heightened personal awareness of issues; b) clarification of facts and attitudes; c) a resolve to participate professionally in involving (and cooperating with) libraries in the lifelong learning efforts, both actual and potential; and e) an excitement concerning interaction with peers over issues of importance and interest.

RECOMMENDATIONS

The recommendations based on the conclusions and findings of this study are presented in two sections: 1) those relating to practical application of the study findings (a total of 24); and 2) those relating to future studies.

Selected Recommendations for Practical Application of Study Findings:

1) The library must view its mission as that of a partner with other institutions in the lifelong learning enterprise and provide materials and services with that goal in mind.
2) Libraries should actively market their services and seek out grants for innovative lifelong learning programs.
3) The development of citizen coping skills should be part of library programming and community problem-solving activities.
4) Urban libraries will have to meet the increased expectations of an expanded clientele as the population shifts to urban areas; users will be interested in hard information and educational materials.
5) Libraries should be electronic interfaces with such communications devices as computers, telephone, and cable TV--in an interactive mode.
6) Library educators need to monitor social trends as they develop in order to offer courses and degrees that are both effective and appropriate for a changing profession.
7) Librarians will need to be trained in creative problem-solving, counseling, mentoring, communications technology, human relations, research and statistical skills, and community analysis.
8) Library administrations need to routinely examine alternative futures and include these projections in a regular long range planning process.
9) Library administrations should apply business management techniques to library operations, while keeping flexibility of service and library effectiveness as top priorities.

10) Library administrators should establish and encourage continuing education experiences for all levels of staff.
11) Library staffs should be encouraged to interact with professionals from other agencies in order to reduce intra-institutional insularity and increase creative idea exchange.

Recommendations for Future Studies:

Delphi studies can be managed on either the large scale or the smaller personal contact level. Panel feedback in this study would indicate that a higher degree of satisfaction can be achieved through the personal contact method. This very real result should be considered as a study is planned.

Full computerization would greatly ease the burden of the researcher. Such electronic management, however, would be expensive. Creation of standardized software for small, medium and large scale studies would be a worthy goal. In addition, it should be noted that this study was limited in its reportage to aggregate results. Analysis of sub-groups would be possible.

Although this study concentrated on public libraries and lifelong learning in the State of Minnesota, both the issues and scope of the panel are broad enough to make generalization possible. Conducting studies in other states for comparative purposes would prove very useful. The importance of this replication cannot be overstated. The findings of this study have profound implications for the future of public libraries in Minnesota, with particular application to the learning society. However, public libraries are a national resource and further Delphi studies should be initiated in order to fully explore these implications on the national level. Public libraries have historically followed social change, but at a conservative distance. Yet, the rate of change has now accelerated to the point that such a leisurely course can no longer be tolerated. If public libraries are to interact in the lifelong learning process in a significant way and expand other aspects of service to meet tomorrow's challenge, then methods of examining alternative futures and planning for change must become standard policy. Additional Delphi studies can support the need for these modifications in the public library world.

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ALTERNATE SESSIONS

Background Papers

Research Utilization Processes in British Agriculture
A Longitudinal Study

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An organization is, among other things, an instrument for accomplishing a purpose. Its components are men and women and the relationships and procedures that structure their interaction, but is is the accomplishment of its purpose that gives the organization meaning and tests its worth. The vision of that purpose -- in important measure -- determines the form the organization will take, and ultimately plays a large part in determining both the level of achievement and the ease and efficiency with which it is accomplished.

This paper is a report on a continuing effort to build a systematic description of the purposes of one kind of organization -- agricultural extension and advisory systems -- as a basis for better design of such systems and, perhaps, to provide a model by which other such analyses can be made. The effort is justified by both the scope of the enterprise and the importance of the consequences. In a world in which population continues to expand, where rural poverty is pervasive and in which the people need information to resolve their problems, such services are a critical resource.

THE RESEARCH PROBLEM

In education, as in architecture, form should follow function. If the functions to be performed can be clearly identified, then it should be possible to design organizations to execute them with economy and elegance.

One can hypothesize that there is, underlying all extension and advisory activities, a basic process (or set of processes) by which the fruits of research are transformed into usable practice and communicated to an audience, and by which people with problems can gain access to the information needed for their solution. One can conceive three further hypotheses: that this process is stable over time, space and subject matter, that the process is so basic that it cannot be altered by organizational structure or policy, and that the process goes beyond the activities of any one organization.

The process hypothesized is analogous to one of ruminant nutrition that is the same for baby beeves as for caribou, which is not altered by the source or nature or level of feeding, and which can only be facilitated or impeded -- but not changed -- by human intervention.

If such a basic process could be shown to exist and could be described, it would clearly be a very powerful tool in the rational design of programs and the organizations to carry them out. But there are problems in doing so. Testing this general hypothesis requires one to allow for the possibility that it is not valid -- that the process is actually situation specific or that it can be controlled by the structure or policies of the organization. One must also allow for the possibility that within a national advisory system, a general consensus about process is likely to emerge and to be incorporated in the way the system does business. This means that a study done in one organization at one time might well discover considerable uniformity of process even though the general hypothesis was false. It is thus necessary to study situations under more than one organizational structure.

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This study was originally undertaken in England, in 1967-68, with the intent that comparable data would be gathered in a number of national systems. A unique opportunity was presented, however, when the Ministry of Agriculture Fisheries and Food (MAFF) was thoroughly reorganized in 1972. As part of that reorganization, the responsibilities of the four outreach agencies of the Ministry were reshuffled, and their management structure was changed. Data collected from the National Agricultural Advisory Service (NAAS) and from other components of the British agricultural system during 1967-70 could thus be compared longitudinally with data collected from comparable sources after the reorganization to test the stability of the process in the face of organizational change. Data were collected from the Agricultural Development and Advisory Service (ADAS) and the Science Service (SS) in 1978-79, and this paper is a progress report based on those data.

DATA COLLECTION

At both points in time, anecdotal accounts of instances of advisory work were collected from individuals involved in the process and were recorded in the form of situation-free event and process statements to permit comparison across cases.

The individuals interviewed were selected to represent all aspects of the agricultural information system from researchers to those in direct contact with the ultimate clientele. The 1967-70 study included representatives from the private sector and agricultural research establishments as well as from MAFF. Constraints of time so far limited the second phase to regional MAFF personnel and to the district level of ADAS personnel.

In almost every case respondents were interviewed singly by the researcher, with the interview recorded on tape. The respondent would be asked at first for a general description of his or her work, then for specific examples, The interviewer would single out a case and ask for a complete description of what happened, when, with whom, why, etc. and that information was recorded as described below. Questioning was non-directive and was intended only to flesh out the description. On occasion, two or more such cases might be related by a single interviewee, but a single instance was the norm. The interviews also contained information of a more general nature which was used with similar information from other respondents to provide a general context of understanding.

Event Items

E 1 - Query Received

E 2 - Problem Formulated

E 3 - Possible Answer Available

E 4 - Acceptible Answer Available

E 5 - Installation of Practice

E 6 - Reception of Answer

E 7 - Discovery Available

E 8 - Application Available

E 9 - Practice Available

E10 - Publishing Decision

E11 - Institutionalization of Practice

Process Items

P 1 - Problem Seeking

P 2 - Diagnosis and Confirmation

P 3 - Search for Answer

P 4 - Construct Answer

P 5 - Research

P 6 - Development

p 7 - Demonstration and Testing

P 8 - Advocacy

P 9 - Instruction

P10 - Publication

Decision Items

D 1 - Answer OK?

D 2 - Publish?

Figure 1. Initial event, process and decision items used in recording case data. Titles have been modified slightly to reflect criteria.

The development of the event, process and decision statements used to describe the cases has been dealt with in detail in the paper presented to AERC in 1969. In brief, these statements were derived from a number of sources and no attempt was made to reconcile them, since they were seen merely as alternate possibilities. Further, it has been the practice throughout to modify or add to the list of statements as needed to better reflect the reality encountered in the cases. Each of the original statements was put on a card along with a definition and means for recording who was involved and the motivation for the event. The cards were arrayed in a

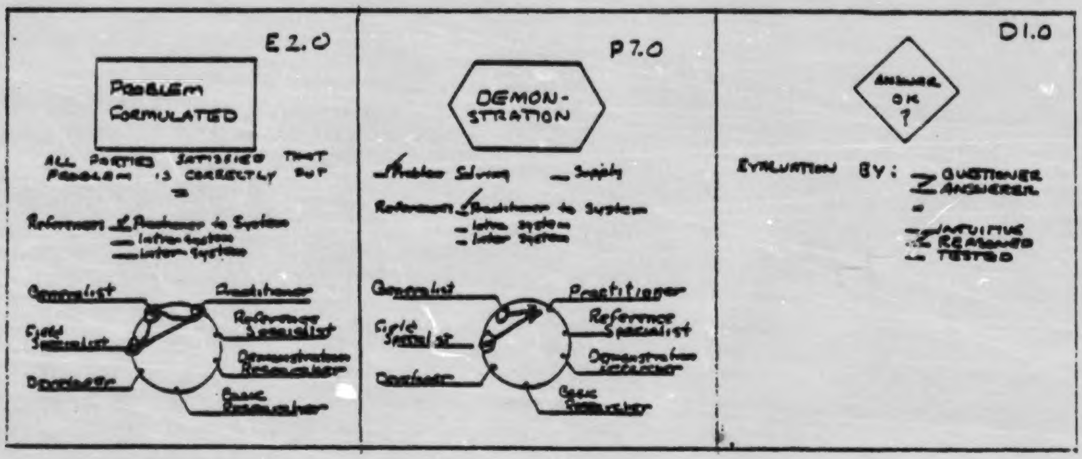
E2.0
PROBLEM FORMULATED
ALL PARTIES SATISFIED THAT PROBLEM IS CORRECTLY PUT
Reference Practitioner to System
Intra-system
Inter-system
Generalist
Field Specialist
Developer
Practitioner
Reference Specialist
Demonstration Researcher
Basic Researcher
P7.0
DEMON-STRATION
Problem Solving
Supply
Reference Practitioner to System
Intra system
Inter system
Generalist
Field Specialist
Developer
Practitioner
Reference Specialist
Demonstration
Basic Researcher
D1.0
ANSWER OK ?
EVALUATION BY:
QUESTIONER
ANSWERER
INTUITIVE
REASONED
TESTED

Figure 2. Representative cards used for recording interviews.

folder and withdrawn as needed during the interview, with blank 'wild cards' being used when none of the others was adequate. At the end of each case account, the cards were numbered in chronological sequence with the aid -- if needed -- of the respondent. For purpose of analysis each interview can be represented by a protocol composed of a sequence of numbers representing these statements in chronological order.

Case 2.29 (1968)			Case 4.11 (1968)			Case 79-6 (1979)	
a.	b.	c.	a.	b.	c.	a.	a'.
E1	E1	E1					
E1	E1			E12		E1	E1
	E2		E8	E8	E8		E2
P2	P2	P2	E1	E1	E1		E10?
E2		E2					
	P3				P2	P3	P3
P1	P1		E2	E2	E2	D1	
	E2						
		P4	P3	P3		P5	P5
E3	E3	E3	E9	E9	E9	D1	
P2							
		D1		P9			E7
E4	E4	E4			E4		P4
			P8	P8	P8	E10	E10

Figure 3. Typical protocols representing case narrations. In each case, (a) is the original interview, while (b) and (c) are independent auditors and (a') is an independent re-audit by the original interviewer.

The tape recordings make it possible to review the interpretations made by the interviewer.

RESULTS

Despite the long period of time over which this study has extended, it is incomplete in two important senses. Only a limited amount of data has been collected in the second phase, with none from the research establishment and the private sector, and a thorough analysis still needs to be made. Nevertheless tentative answers are possible to these important questions.

Is the instrument efficient and reliable?

The data collection technique works well and is reasonably efficient. Respondents have no difficulty in describing the situations that make up the case studies. The precoded process and decision items accommodate most of the narration, and the modification of items or the creation of new ones is easy. The card system works well with practice, and tape recordings make reliability checks and revision possible. It is possible without hurrying to collect 5-10 interviews at a single location in a day.

Since the procedure requires the interviewer to interpret the case being narrated, reliability is a major concern. Detailed reliability checks were made on 67 of the first group of interviews, with two auditors listening independently to the tapes and arriving at their own interpretations, thus providing three readings on each interview

Of 805 separate interpretations, all three were in agreement on 317 and at least two agreed in 515 cases. Instances where disagreement occurred have not been fully analysed, but conflicting interpretations appear to be less frequent than differences in the amount of detail recorded.

Is there a 'master' process?

On the basis of the present evidence, and at the present state of analysis, the existence of a 'master' process is problematic. There are consistencies — in 76 the cases, for example, the case began with a query and/or problem seeking behavior, followed by diagnosis and confirmation, and reformulation of the problem. In thirty-one of these instances, the next step was a search for an appropriate answer and in eight others it was the construction of an appropriate answer on the basis of background information.

In 1967-68, 25 of 66 instances reported by field staff ended in installation of a recommended practice. In 28 other cases the process had produced what the advisory officer felt was an acceptible answer which was in the process of being transmitted to or evaluated by the client at the time of the interview.

These consistencies may, however, be less important than the fact that -- between these beginnings and endings-- few consistent patterns can be discerned. The process appears to be made up of definable tasks which occur in various orders. Thus one may be able to define the content without finding a sequence.

For example, one attempt at analysis has focussed on item E9 "Practice Available," which appears in a majority of the protocols. This item appears in a variety of company. It is sometimes preceded by a set of problem-identifying items, as described above, suggesting that knowledge of an available practice is used as an input in problem-solving. In these cases, it is often -- but not always -- followed by evaluative behaviors and/or by output in some form. In other instances the item appears at or near the end of the protocol, and in others -- especially in the 1979 data -- at the beginning of the process. Intuition says patterns are there, but so far they have eluded organized analysis.

Is the process consistent over time and organization?

This, too, is still problematic, and there is evidence to suggest that the content of the process may have changed over the past ten years. Of 66 cases reported in 1967-68, by advisors working directly with farmers, 41 began with a query and 10 with problem-seeking by the advisor, and -- as reported above -- 53 cases ended in the recommendation of a practice for adoption. Of the 31 such cases reported in 1979, only 13 began in one of those two ways, and none had yet resulted in installation, although a satisfactory answer or recommendation had been arrived at in 12 cases.

This change reflects a change in the overall relation between advisor and farmer, which was apparent in the interviews. Ten years ago, the advisor was a primary source of information about new practices. The advisor might advocate a practice or offer it in response to a query. In 1979, farmers seemed to learn of practices elsewhere and come to the advisor for help in evaluating them in local terms.

One cannot say, for sure, that this represents a change in the process, since re-examination of the earlier cases may reveal similar situations, now that one is sensitive to them. But it is clear that at a minimum the view we have of the content of the process must be enlarged to accommodate this information.

CONCLUSION

On the basis of this preliminary analysis, it appears at least possible that the basic hypotheses posed at the beginning will not survive unaltered. It seems increasingly unlikely that there is one model or even a set of alternative models that will describe both the content and the sequence of the processes of research utilization.

This does not, however, doom the purpose for which the study was done. Even if such models cannot be developed, it should be possible to derive a better understanding, based on systematically examined experience, of the tasks which must be performed if research is to be efficiently utilized and problems are to be solved in the field.

At a minimum, the data collection approach developed for this study offers promise as a way of getting beyond the screen of official pronouncements and looking directly and objectively at the way an extension/advisory system does business.

Mexican Americans in Midwest Suburbia

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SIGNIFICANCE OF THE RESEARCH

The purpose of this research was to locate and describe the Mexican-American population of suburban Parkville (population: 13,000) and to take a gross measure of the extent of the integration of this population into a larger community. Methods used in study included participant observation, grounded field theory and sampling by referral. Thirty-two in depth interviews were conducted with five informants and twenty-seven subjects. The Mexican-American population appeared to be much larger than community leaders believed. It was seen that this population resembled the socio-economic "underworld" once described by Michael Harrington. The "invisibility" of this population was seen to be a function of the fact that they were widely dispersed among the larger population and the majority continued to maintain a migrant life style.

The research was significant because it provides practitioners with insight into the problems of providing adult education to Mexican immigrants. In urban settings this group is usually concentrated in ethnic neighborhoods. In suburban settings, however, this population is not easily located and rarely participates in adult education opportunities available in the community. This research sheds light on the phenomena of low visibility in the suburban community as well as non-participation in adult education.

Federally funded adult basic education programs have been designed in the past for this population on the assumption that participation in such programs would lead to employment and social and cultural assimilation. The findings of this research challenge some of those assumptions.

Finally, this research looks at the Mexican immigrant population in a suburban community in terms of community analysis concepts taken from the field of sociology, especially those of George Hillary, Colen Bell and Howard Newby.

METHODOLOGY

Research methods used to study the Mexican-American population of Parkville were based on qualitative analysis (Glaser and Strauss, 1972), participant observation (Bell and Newby, 1972) and sampling by referral (Welch, 1975).

Preliminary observations of this community were made in the four years of 1972-1976 while the author conducted adult education programs in the area. Mexican-Americans were easily identified in public places such as the local supermarket, the laundromat or the train station because of noticeable language and cultural differences. Their presence itself was not without peculiarities. They seemed to come and go. New faces would appear; recognized faces would be seen no longer or seen again after a long absence. Mexican-Americans who had lived in Parkville for years appeared to have little interaction with the rest of the community. Estimating the number of Mexican-Americans living in Parkville at any one time had seemed an educated guess at best, even on the part of town officials. Four years of participant observation gave rise to these questions: Why did people come and go? Why did they live in Parkville rather than other communities?

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In an effort to find answers to the above, an interview guide was designed based on a model developed by John Lofland.[1] After the researcher introduced himself and explained the nature of the study, information was sought on demographic factors (age, education, Parkville address, years living in Parkville and region or town in Mexico considered "home" by the subject). Open ended questions were then asked to gather information on motives for coming to Parkville, plans to stay in the area, attitudes toward the community and frequency of visits to Mexico or Texas.

A second interview guide was prepared for interviewing five informants: the mayor of Parkville, the city manager, two teachers of English as a second language to Mexican-American adults and a Mexican-American of influence in the community. The informant interview guide sought information on the socio-economic aspects of Parkville such as income, housing, schools and employment opportunities for Mexican-Americans. Questions in the informant guide were also designed to ascertain the informant's degree of contact with Mexican-Americans, his views on the primary employers of Mexican-Americans in Parkville, motives of Mexican-Americans for coming to the area and participation or lack of participation in community activities. Finally, all informants were asked to estimate the Mexican-American population of Parkville.

All but two subject interviews were conducted in Spanish. Subject interviews followed the interview guide strictly. Notes were usually recorded after the interviews. In the case of informant interviews, the interview guides could not always be adhered to. For example, one informant interview lasted five hours. Since the interview was with a Mexican-American who had come to the U.S. via the federal Bracero Program in 1943 and who was willing to share his insights, an interview guide seemed superfluous.

Sampling turned out to be a vexing problem due to the low visibility and considerable dispersion of the of the population. Indeed Harrington's description of a clandestine underworld seemed well fitted to this population. Classical methods such as random selection of names from the phone directory or block sampling could not be used. Of the twenty-seven subjects interviewed, only four could be found in the phone book. Because the population was scattered throughout the town, block screening was inappropriate.

In addition to general inaccessibility of the population, the current influx of illegal aliens in the Chicago metro area made it impossible to interview subjects in their homes for fear of appearing as an investigator. It was felt that any attempt to interview subjects in their homes would have created tensions detrimental to the interview. Although some addresses in town were considered likely to house Spanish speaking people, addresses of specific persons could not be obtained.

In order to study assimilation some criteria had to be identified in the literature. It was felt that Hillery (1955), frequently cited for his research on the meaning of community, would be a good source for this criteria. In his analysis of ninety-four definitions of community, Hillery found that sixty-nine of them mentioned three common factors: a)social interaction, b) common geographic area, and c)additional common ties.[6] Of the three common elements of community identified by Hillery, only one was applicable universally throughout the sample, that of common geographic area.

Social interaction, was evidenced by only a small number of subjects interviewed. We hypothesized that social interaction is a measure of the frequency and the quality of contacts with the community, and designed a continuum. At the low end of the continuum is minimum involvement in the community, which is expressed in the statement that the subject would as soon live elsewhere. At the high end of the continuum maximum social interaction is represented by involvement in the political process. Table 1 represents the attitudes and social contacts demonstrated by the sample.

TABLE I

Would as soon live elsewhere	Likes town because peaceful	Likes town has friends or relatives	has invested in property or business	Is involved in a social or political group
37% (10)	37% (10)	11% (3)	7% (2)	7% (2)

If Table I could be considered a continuum going from little involvement and no sense of belonging to considerable social interaction and a high sense of belonging, it would appear that the majority of subjects sampled demonstrated little or no sense of belonging to the community and of participating in it. Because of the sampling difficulty, it would be hazardous to generalize these findings, even to the Mexican-American population of Parkville. However, the categories generated by the interviews give some insight into the population studied.

Why did the subjects come to Parkville? All but five (81.4%) of the subjects interviewed came to the area to find work. All but two came to Parkville either to find work for themselves or to accompany a family memeber or relative who had found a job. Although most came to the area to seek employment, they did not come specifically to Parkville for that reason. More than half of those interviewed (57%) work in other towns some of which are thirty miles from Parkville.

The reason that Mexican-Americans come to Parkville is suggested by the city manager: The availability of housing. Four years ago Parkville experienced a need for more rental housing. Two large apartment complexes were built (not including a government subsidized 236 Project of some hundred or more units). Either because of management policies or because the demand for rentals had been miscalculated, these apartment complexes did not attract enough tenants to meet their

Thus a mixture of sampling methods was tried. The four subjects whose addresses were in the phone directory were contacted by phone to set up appointments. Others were interviewed in public places frequented by Mexican-Americans such as supermarket, a laundromat and a school that taught English as a second language. The local Catholic church also proved an excellent place to contact subjects before and after a Sunday Mass conducted in Spanish. A Mexican grocery store specializing in ethnic food was heavily patronized by the population studied. In these public places interviews were conducted or arrangements were made to see the subject at a location where he or she felt comfortable. Finally, several subjects were interviewed after being referred by other subjects. Two of the twenty-seven interviews were conducted on the telephone. Three of the interviews took place in the residences of those interviewed at their invitation.

SALIENT FINDINGS

Considerable confusion exists about the actual number of Mexican-Americans currently residing in Parkville. The 1970 census indicated 378 people of Spanish descent.[2] The Mayor could not say how many Mexican-Americans were living in Parkville in 1977, but felt that the number would be double that of the 1970 census. Her opinion coincided with those of two well informed Mexican-Americans. These estimates seem reasonable in light of Ovando's finding that the last decade has seen an increase of more than 100% in the Spanish speaking population of metropolitan Chicago.[3] Also, Jenkins (1977) observed that the U.S. is now experiencing the largest alien invasion of the century -- an invasion characterized by its large number of illegals.[4] Stoddard (1976) noted that the flow of illegal entries into the U.S. follows cycles. The flow peaked in 1955, decreased in the sixties and was rapidly rising in 1974.[5] A subject of some influence among the Mexican-American population noted, "There are at least twice as many Mexicans in Parkville today than there were when I came in 1970. The reason you don't notice them is that they know how to keep out of sight." The city manager, on the other hand, views such claims as unfounded; he sees the Mexican-American population of Parkville as only slightly increased over that of 1970. On the thesis of the "Other America" it would not be inconceivable that a small population with varying degrees of transiency living in scattered areas throughout the town might remain somewhat invisible.

It was also discovered that the Mexican-American population of Parkville is quite heterogeneous contrary to some tendencies of townspeople and informants to stereotype them. Four (14.8%) of the twenty-seven were U.S. citizens by birth or naturalization. All four owned property in Parkville and spoke fluent English.

Eighteen (67%) of the subjects were either currently engaged in agricultural work or claimed to be former migrant farmworkers. At the time of the interviews, however (October and November), only five (18.5%) were still working in agriculture -- three in greenhouses and two at a sod nursery.

capacities. The city manager pointed out that one of the complexes currently maintains an occupancy rate of only 35%. In turn, Mexican-Americans have little trouble locating rental units in the area. This was confirmed by statements of the subjects and of the informants. Six of the subjects interviewed has been living in other towns before coming to parkville. Since they did not work in Parkville, their sole reason for coming to Parkville was to find housing. A single bedroom unit in one of the modern apartment complexes available to Mexican-Americans rents for $200.00 a month. Mexican-Americans seem to be coping with these rents by splitting the costs between 3 to 5 people. This practice has occasioned some bad reactions from the community.

If jobs bring Mexican-Americans to the area, and available housing brings them to Parkville, why is this population so mobile? It would seem that the availability of jobs and housing would encourage many to settle in Parkville. It was already mentioned that over half of the sample were formerly migrant farm workers. One thirty year old male holding two full time jobs at the time of the interview identified himself as a migrant worker. His two full time jobs were industrial. Before coming to Parkville he has been migrating to California and Illinois for more than twelve years. His wife and three children live in Mexico City. A snapshot of the children showed them looking quite presentable in school uniforms associated with private schools. He planned to return to Mexico at Christmas to visit his family and to be back at work by the end of January.

A meeting with a group of five adults, three of whom I was able to interview revealed additional migrant characteristics. The five were related and had been working on California produce farms before 1977. In 1977, before leaving Mexico, they heard about the drought conditions in California; consequently they decided to come to the Chicago area where they felt reasonably certain that they could find work in agriculture or in industry. Two of those interviewed who were U.S. citizens and placed high on the community integration continuum came to the area originally as farm workers. Several who claimed they had never done farm work in the United States, said they had been farm workers in Mexico. Those for whom I have no direct data concerning possible migrant farm worker background gave indications of being rural folks from Mexico. The migrant backgrounds of nearly all of those interviewed perhaps explains why they show little desire to establish themselves permanently in the community. Another hypothesis is that many of them are undocumented aliens and that sooner or later they will have to return to Mexico regardless of any desire they might have to stay.

One of my informants, himself a naturalized American of Mexican descent, commented on the inability of his people to integrate themselves into the community: "Mexicans who have lived here for ten and fifteen years persist in talking about returning to Mexico someday." He continued, "That is why my people have no political voice in this country. Their minds are set on returning to Mexico, even though they never will."

Of the twenty-seven subjects interviewed, only three (11%) consider Parkville their "home town." Fifteen (55.5%) plan to return to Mexico as soon as economic circumstances will permit. Five (18.5%) have made "no plans one way or the other." Those having made "no plans" include a young man who admitted that his lack of documentation prevented him from leaving the country even though he longed to visit his family in Mexico.

CONCLUSIONS

The purpose of this study was to locate the other America of the Mexican-American living in Parkville. The study also attempted to generate data from which tentative categories might be developed (Glaser and Strauss, 1967). One of the central categories generated was that of migrant workers, since the majority (74%) gave evidence of maintaining migrant life style. More needs to be learned about Mexican-American migration patterns in metropolitan and suburban settings. Migrant patterns have been traditionally associated with agricultural employment. The U.S. Office of Economic Opportunity assumed in the 1960's that opportunities for permanent employment would help break the migrant cycle of Mexican-American families. This study suggests a re-examination of that assumption. Mexican-Americans in Parkville maintain a migrant life style despite ample opportunity for permanent employment.

This study further suggests that Mexican nationals residing in Parkville resist assimilation because 1)Their presence in the U.S. is the result of having been "pushed" out of Mexico by adverse economic pressures and 2)The proximity of their homeland invites frequent return trips to communities with which they identify. Since they unwillingly left Mexico, motivation to become "Americanized" would appear weak at best. Yet social workers and educators often assume that motivation to assimilate exists among members of this group. In Illinois the so called "Americanization Program" funded by the State Adult Education Office makes this assumption. In a real sense Mexican nationals are economic exiles not dissimilar to other groups who are political exiles. The Mexican exile mentality, in contrast to other groups, is reinforced by the proximity and easy return access to their homeland. Thus, psychological pressures to assimilate are not present in this group.

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POSTER SESSION

Background Paper

Revitalizing Foundations for Research in Adult Learning

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Introduction

The purpose of this poster session is to present a theoretical model from which sustained research of adult learning processes as psychological phenomena can be initiated. It is assumed that the consequence of such research will be a strengthened Adult Education discipline and practice.

Two areas of elaboration in pursuit of this aim are: 1) the context wherein a need for a revitalized foundation exists; and 2) a theoretical model which serves as an exemplary base for conceptualizing and implementing sustained research in adult learning.

This paper will attend to the context of foundational need and some background to aid comprehension of the proposed foundation. The poster session will explicate a proposed foundation via a theoretical model along with related research potentiality.

Context of the Need

Recently, Adult Education was admonished for its lack of focused sustained research (Boshier and Pickard, 1979). It was suggested that a need exists to develop cumulative research projects. This criticism can be easily directed toward several specific areas within Adult Education, one of which is adult learning.

A primary aim in Adult Education is helping people learn how to learn (Bergevin, 1967; Lindeman, 1926). Knowing how people learn is central to this aim. Significantly, there is a dearth of theoretical formulation and research in Adult Education literature regarding learning processes, particularly from the position that they are psychological processes. For example, in the past decade very few articles in Adult Education dealt with learning. Rather than theory based research on learning processes, the focus was adult learning activities (Penland, 1979; Tough, 1978; Bevis, 1975), instructional effect on learning (Kotaska and Dickinson, 1975; Forest, 1978) and theory review (Long, et al, 1979; Dubin and Okun, 1973).

Other literature in the field of Adult Education contains much discussion about adult learning (Knowles, 1976; Kidd, 1977, Verduin, et al, 1977; Knox, 1977). Review of these resources reveals their atheoretical nature as explained by Boshier (1978). Accordingly, they may best serve as pretheoretical formulations which represent the nature and practice of Adult Education but lack rigorous and systematic qualities needed for predictions and extended inquiry. Thus, their utility is in identifying and supporting a theory or theoretical model appropriate to research and instruction in Adult Education.

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In conclusion, learning viewed via the teaching and learning process, affective contributors and attendant developmental aspects, considers what is associative to learning but does not explicate the process of learning; a unique and vital individualized phenomenon. Adult Education now needs a framework depicting interelated aspects in the act of learning. Cognitive, behavioral and philosophical explanations represent the expanse of work regarding human learning and can provide consonant foundation for sustained inquiry and greater understanding.

Preliminary Details

Adult Learning, in the context of knowledge comprising the discipline of Adult Education must have consistency with other foundations in the field. Pertinent to the development of a base for research are the philosophical underpinnings of the discipline. Although each adult educator may have a philosophical view, in existing literature, there is a noticeable lack of consistency and sufficiency. Although Bergevin's (1967) text is devoted to this end, much is left to inference. Benne (1957) argues that the nature of man, the nature of knowledge acquisition and the nature of pedagogical authority are philosophic issues to be clarified by educational philosophy. White (1970) references R.W.K. Paterson as a philosopher on Adult Education. Paterson chooses an existential view in reference to these issues.

Existentially, humans are viewed as free agents, choosing agents and responsible agents. Adult education literature reflects an existential view through positing adult involvement in program planning throughout the creation and fruition of their educational experiences (Knowles, 1970; Boyd, 1969; Boyle, 1958; Houle, 1972). The rationale is that people have rights and needs; they have experiences that make learning relevant; and they have grasp of their individual project development through educational experiences.

Thus, if an existential view is prevalent in Adult Education, certain assumptions about the nature of humans follow. Assumptions that have direct relevance to formulating foundations for research in learning are:

> Humans are rational beings. Propensities to reason - to set forth strategies, follow through and make use of what happens in entirely different contexts - distinguishes human organisms. As a person reasons, many psychological processes are engaged. These psychological processes may comprise the mechanisms for learning.
>
> Humans are transactive beings. A person's thoughts and actions depend upon the state of that individual as a product of his/her history and the physical and social surroundings of the immediate moment. If transactive captures the true condition of humans, then it must pervade in every function. Learning is the function of central interest here, and thus

must be viewed as a transactional phenomenon.

Humans are psychologically multi dimensional. Actions are often based on information gained by previous experience(s). Such information is not always within the conscious and therefore must exist in a realm of nonconscious but is allowed access to the conscious. This assumption of conscious and nonconscious dimensions is central to adequate explanations of phenomena such as perceiving, memory and concentration. These phenomena are critical to conceptualizing learning as a psychological phenomenon. A foundation for inquiry into learning must take the two dimensions into account.

In conclusion, a logical start in formulating a foundation for research in learning is establishing a philosophical point of view. An existential view is consistent with inferences from various literature in Adult Education. This point of view brings a series of assumptions pertaining to the human condition. Three assumptions are particularly relevant to conceptualizing learning as a psychological phenomenon. Given the establishment of this philosophical base, learning must be defined within an existential context.

Learning defined

There are many definitions of learning both within and outside the discipline of Adult Education. The most common definitions are that learning is a change in behavior (Skinner, 1968; Thorndike, 1949; Hull, 1943; Spence, 1960) and that learning is a change in cognitive structure (Ausubel, 1977; Bruner, 1964; Klausmeier, 1974; Lewin, 1951; Bigge, 1976). These definitions more nearly explicate results of learning rather than emphasizing learning as a process.

In the present task of developing a foundation, learning means constructing meanings. In other words, learning means developing mental constructs useful to a person in differing contexts and activity.

Meanings are constructed from the totality of that taken in by a person via one, a combination of several or all senses (feel, smell, hear, taste, see). Meanings are also constructed through making use of previously constructed meanings. Acts wherein meaningful mental constructs are made use of may include perceiving (e.g. five senses), thinking, making, learning or any one of all actions a person may engage in during the course of living.

The result of learning is meaning, which is nothing more nor less than growth; growth in the potential of a person to be ever more capable of intelligent functioning regardless of the context, whether physical, psycho-emotional or social cultural.

In conclusion, learning means constructing meanings. Thus, the task of developing a foundation for research in learning requires identification of processes involved in meaning construction. This identification entails examination of theory bases wherein relevant constructs are couched.

Background of Proposed Foundation

A great body of knowledge about learning exists outside the field of Adult Education. Represented are systematic as well as asystematic views. Considered en masse the collective views are inherently unwieldly while the totality of learning remains theoretically ill-addressed. Considering the function and purposes of Adult Education, several theoretical areas stand out as particularly useful in providing conceptualizations of constructs and language needed for a consonant foundation. These areas are field theory, cognitive development and human development. A complete review of each cannot be presented here. Therefore, only principal authors in the respective areas are identified with a brief discourse of their contributions.

Field Theory

Lewin (1951) relates that field theory is best characterized as a method of analyzing relationships and of building scientific constructs. Definitions of constructs in field theory help determine conceptual types or dimensions which provide scientific meaning to the question of what a psychological phenomenon is.

The central idea that meanings of all constructs within a given field are mutually interdependent is particularly important. Accordingly, any type of behavior depends upon the total field at the particular time of the behavior. Further, the psychological past and future function simultaneously within the psychological field at that particular moment.

The concept "life space" derives from this idea and is useful in identifying parameters of investigation in learning. Life space represents an accounting of the person and their psychological environment. A psychological environment consists of functional and symbolic relationships of perceived objects and events. Hence, it includes present perceptions, memories, language, myths, values, anticipations, expectations, motives and so on. All elements in a life space influence how a person learns. Thus, life space is a construct that helps identify influential factors in learning and isolates relationships that can be tested.

Cognitive Development

Cognitive developmentalists conceptualize learning as an internal, cognitively mediated process. Klausmeier and others (1974) depict operations of concept development at four successive levels: 1) the concrete level - attending to an object and representing it internally; 2) the identity level - recognizing an object as the same as one previously encountered although presently perceived from a different perspective; 3) the classificatory level - classifying a large number of objects as examples and nonexamples without description of the basis for the grouping in terms of their defining attributes; and 4) the formal level - naming the concept, its intrinsic or societally accepted defining attributes, designating that which belongs/does not belong to the set, and stating the basis for inclusion/exclusion according to their defining attributes. Bruner (1964) explicates cognitive growth as technological advances in the use of the mind. He distinguishes three information processing systems which aid humans in representing recurrent features of their complex environments: 1) enactive representation - through action; 2) iconic representation - through imagery; and 3) symbolic representation - through language. Piaget (1970) posits intellectual development as progression through four stages of maturity: 1) the sensory motor stage - actions and coordination of perceptual and motoric functions develop; 2) the preoperational stage - capacaties for symbolic representations of observations from the past develop; 3) the concrete operations stage - logical thought begins to develop; and 4) the formal stage - capacities for abstract thought and reflection, to formulate hypothetical constructs and to reason in the absence of presently perceived objects develop.

The above theorists and others who echo their theses (Gagnè, 1970; Ausubel, 1967) characterize learning as growth; it begins with infancy and carries through adulthood and is a highly individualized, internal process. Significant contribution to conceptualizing a framework is made through concepts and their interelationships explaining cognitive development, such as perception, transfer, differentiating, integrating, abstracting, generalizing and memory.

Cognitive developmentalists generally consider factors outside a cognitive realm as a part of cognitive development. The cultural emphasis by Bruner and Klausmeier provides only one dimension of noncognitive factors and the physiological - psychological maturation by Piaget receives minimal corroboration when researched among adults (Long, et al, 1979). Thus, it may be more fruitful to look to the human development area for frameworks explaining physio, psycho, social-cultural factors when considering research in adult learning.

Human Development Theory

Early interest in human development spawned a great body of knowledge about development through adolescence while recent interest has prompted emphasis on human development into and through the adult years. Thus, there is a wealth of theory and research from which to draw for purposes of integrating human development and learning theory (Buhler and Massarik, 1968; Havighurst, 1952; Kohlberg, 1970; Loevinger, 1970; Sheehy, 1974, Bischof, 1969; Erikson, 1950). From this vast array, the eight stage theory of identity formation by Erikson (1950) is most suited for purposes here.

The eight stage theory integrates physio, psycho, social-cultural development across the entire life span and thus has great potential in explaining underlying motives for what a person does or will do. Couched in the same base, it allows consistent use of many psychoanalytic concepts such as coping-defense mechanisms (Freud, 1949), conflict free ego sphere (Hartman, 1959) and other personality dynamics such as cognitive styles (Witkin, 1977). Evidence supporting relationships among such variables and their relevance to the process of learning already exists (Wilson, 1978; White, 1963; Witkin, 1977).

Overview of the Poster Session

This paper posits that Adult Education needs sustained inquiry in how adults learn. Also, that prerequiste to implementing such inquiry a common base must be formulated in consonance with other foundations in the field. Areas of theory and inquiry outside the field of Adult Education were identified and their utility in formulating a common base was discussed in general terms.

The poster session will focus specifically on a model which depicts learning as a psychological phenomenon. This necessitates greater elaboration of concepts and constructs borrowed from field theory, cognitive development and human development areas. More significantly, hypothetical relationships among these concepts will be depicted. In so doing, areas where understandings need testing or strengthening will be isolated.

The model is intended to be exemplary of a common base for sustained research in learning. Thus the poster session will also attend to implications of research needs for corroborating or falsefying hypothetical relationships among variables purported to comprise adult learning.

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Symposia Abstracts and Background Papers

SYMPOSIUM ONE

Research on Distance Learning

Background Papers By:

Frances Aversa, Research into Distance Learning in a Regional Consortium Setting

Dee Brook, Learner Characteristics of the Mass Media Distant Learner

Dan O. Coldeway, Research and Evaluation of Distance Education for the Adult Learner: A Brief Explanation of Project REDEAL

John F. Ellis, The Role of Research in the Development of the Procedures and Programs of a Comprehensive Distance Education Institution

Research into Distance Learning in a Regional Consortium Setting

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This presentation purports to share a program of research and self study of the University of Mid-America (UMA), a consortium of 11 universities in the mid-western United States. The two phases of this activity have involved the consortium in different ways.

Through a series of mini-grants from the UMA Office of Research, faculty at a number of UMA institutions designed and conducted literature reviews and/or research studies reflective of their interest in the theory and practice of distance learning. The studies were for the most part exploratory in nature, simply laying the groundwork for further research. Two of these studies, "Identifying Success Characteristics in Self Directed Adult Learners" by Roger Hiemstra and Robert Judd of Iowa State University and "Learners' Cognitive Style and Levels of Learning in Television and Print Instruction for Use in Open Learning: An Exploratory Study" by J. E. Danielson and William Seiler of the University of Nebraska will be summarized as examples of this program of research.

The following questions served as the basis for the Hiemstra and Judd study, an ex post facto comparison of data available through a literature review:

"1. What theory, research, and literature on "success" in relationship to adult learning is available?

2. How might some of the available data on self-directed learning be analyzed in terms of "success" criteria?

3. What contributions can such findings make to future research and development in non-traditional and adult education?" (p. 7)*

The investigators used the following criteria as means for evaluating the learning projects research data:

"1. To what extent are adults engaged in learning?

2. To what extent do the participants in learning projects differ from each other in terms of the amount of learning undertaken?

3. To what extent do adults select themselves as the primary planner in carrying out learning projects?

4. To what extent do self-directed learners carry out learning projects of a self-fulfillment nature?

5. To what extent do self-directed learners utilize printed and other non-human resources in their learning endeavors?" (p. 7)*

Through an analysis of the data, the study concluded that "much more attention must be given by society, and more specifically by educators, to the self-directed learning phenomenon." (p. 8)*

The Danielson and Seiler study attempted to go beyond the simplistic assertion that some people learn more from one medium than from another. It focused on one individual difference (cognitive style) "in the belief that cognitive style research will result in readily useful information for the development of open learning instruction." (p. 5)*

The consortium's self study has examined the characteristics, needs and activities of the population of distance learners served in UMA's seven state region since 1974. It has attempted to explore issues of access, choice and opportunity as they relate to a number of participating adults. In addition it has attempted to elucidate the motivations, philosophies, and commitments of a number of four year institutions of higher education with regard to the concept of open learning, its procedures and practices. Institutional research of this nature in conjunction with thatdirectly pertaining to the distance learner will hopefully combine to help provide some of the much needed direction in the field.

*From authors' abstract, University of Mid-American consortium conference of adult educators, University of Mid-America, Lincoln, Nebraska, Nov. 12-14, 1978.

Learner Characteristics of the Mass Media Distant Learner

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SUMMARY

If there is one word which best characterizes distant learners served by mass media courses, it is heterogeneity. The ages range from seventeen to eighty; the educational backgrounds, from an incomplete high school education to post-Ph.D. Motivations also cover a wide spectrum. Many seek college degrees to fulfill personal goals; others seek degrees for career advancement. Some wish further education for job improvement, retraining, or career changes. Still others want to pursue a hobby or special interest or simply want to learn something new. Family incomes range from below the poverty level to the top five percent in the United States: ethnicity is often as diverse as the community the institution serves. Yet despite all of the variety included in this universe of distant learners, there are some useful statistical studies by institutions currently operating mass media courses. Among other findings, most institutions mass media distant learners as older and more affluent than on-campus students. They are also more likely to be employed and to be female. In combination with the demographics of an institution's traditional clientele and the demographics of the service area the institution serves, these studies can suggest the kind and numbers of people a distant learning system will most likely attract.

Studies in student achievement, retention, and learning characteristics also reveal differences between mass media registrants and those in on-campus classes. Generally, these reports reveal similar grade-distributions and lower retention rates in comparison with those of traditional campus classes, but higher retention rates in comparison with other distant learning modes. Mass media distant learners have been found to be somewhat more field dependent than field independent, suggesting the need for highly structured learning sequences. Consideration of these findings and others can be useful in devising workable learning strategies and coping techniques for distant learners.

Since the survival of many post-secondary institutions in the United States will depend upon attracting new students, the discovery of new populations to be served, the analysis of their particular needs, and the implementation of systems to serve those needs well is critical. A diverse adult population is available to most institutions; their needs will be served - if not by colleges and universities, then by others.

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Research and Evaluation of Distance Education for the Adult Learner
A Brief Explanation of Project REDEAL

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Rigorous research and evaluation efforts in distance education have grown steadily over the years (see Erline Ljosa's article, ICC Newsletter, Vol. 8, No. 4, 1978). In many areas of distance education practitioners enjoy a much greater empirical base from which to operate. However, nagging problems of attrition, learner management, information dissemination, etc., still plague both old and newly developed distance educational institutions. In many cases, institutional concerns over "getting the job done" still overshadow concerns over "how to do the job better, more efficiently, or for that matter, differently." The opportunity for an institution to stand back and examine its practices in detail is a rare one. One such opportunity exists, and this paper will briefly describe a project being conducted at Athabasca University in Edmonton, Alberta, Canada, with just such a goal in mind.

The Establishment of Project REDEAL

Beginning in January, 1979, the Learning Services Branch of Alberta Advanced Education and Manpower awarded a $125,000 grant to Athabasca University in Edmonton, Alberta, to investigate factors important in the motivation and management of the adult learner in distance education. Under the direction of Dr Dan O. Coldeway, Head of Instructional Design, and the originator of the Project REDEAL proposal, a team of researchers were assembled to begin the investigations scheduled to be completed by July, 1980. The purpose of this paper is to describe the scope and range of the REDEAL project and some of the objectives that the REDEAL project team hopes to accomplish during the 18-month project period.

Formal efforts on Project REDEAL began in April, 1979, with the arrival of Drs Bob Spencer and Geoff Peruniak, full-time research associates on Project REDEAL. Upon their arrival work began to accomplish three primary goals. First, by constructing a working model of motivation an attempt was made to more carefully define the overall problem of adult learner motivation. That model was used as a guide to the identification of variables which could then be systematically researched and evaluated at Athabasca University, Second, the impact of existing research, technology, and experience on the problem of adult learner motivation in post-secondary education was examined in an attempt to identify factors which could prove useful in the distance educational environment. Learner management system (e.g. Keller's (see Keller, 1968) Personalized System of Instruction (PSI) and contemporary theoretical positions, (e.g. aptitude by treatment interaction research (Cronbach and Snow, 1977), were explored in some detail in order to avoid "reinvention" and to also learn what experiences others have had in solving similar problems. Third, a considerable amount of brainstorming and problem-solving occurred in an attempt to reconceptualize distance education from a new perspective. This was facilitated, in part, by the fact that both REDEAL research associates were new to Athabasca University and able to be almost totally objective in their analysis of those factors potentially important in the motivation and management of the adult learner.

A Summary of REDEAL Projects

The end result of the aforementioned activity was a series of research and evaluation projects addressing what the REDEAL team considered to be of prime importance to the overall question of learner motivation in distance education. These projects may be described as follows:

A. In order for REDEAL to better understand and communicate with the existing AU staff, an analysis of the existing perceptions of Athabasca University professional staff regarding factors influencing the motivation and management of the adult learner was completed using interviews and questionnaires to all professional staff. This information was used in determining project priorities and locating existing informational sources.

B. A learner tracking system was established to determine existing learner performance levels across courses at Athabasca University. A randomly selected group of learners are being carefully monitored to more accurately understand the existing instructional and administrative system at Athabasca University.

C. In order to examine the effect of versions of the Personalized System of Instruction (PSI) in distance education, REDEAL is completing the revision of a course with a relatively poor track record of learner performance and using PSI as a model for the course redesign. The main focus of this study is on frequency of feedback in a tightly structured PSI framework.

D. REDEAL is investigating the effect of, need for, an administrative support system required to offer distance learners the opportunity for group contact via seminars as an additional component to the standart package distance-delivered course. Of specific interest in this study, is the direct motivational effect (i.e. potential reinforcing effect) of the availability of group contact on the rate of learner progress within courses.

E. An analysis of the skills, both instructional and interpersonal, required to be effective as a telephone tutor is being conducted. A workshop and follow-up experimental program for a large number of tutors will occur in order to determine if such an approach can directly affect tutors, and in turn, distance learners.

F. An experimental program to investigate the effects of a tutor-management system which attempts to provide incentives for tutors who are capable of getting more of their learners through courses, will be examined. The goal of this program is to directly link learner behavior to the management and pay of tutors.

G. An experimental program evaluating the potential effect of "peer tutors" will also occur. This program utilizes carefully selected learners from a course which they have successfully mastered and who are then asked to volunteer to serve as tutors for a limited number of other learners in the same course.

H. Learner self-management strategies will be investigated, with a primary focus on determining the types of self-management skills most useful to the adult learner.

I. An experimental program to examine the problems of learners who "never get started" in courses will also occur. This program will provide "non-starters" with reminders in an attempt to reduct the number of non-starters (i.e. convert non-starters into learners who complete credits.)

J. Through the use of new data manipulation techniques, an attempt will be made to carefully examine the relationship between individual learner characteristics and learner performance. This activity will occur using information from all of the above projects, in addition to a special project focusing specifically on the existing characteristics and performance of Athabasca University learners in both the previous and current academic years.

K. Several smaller projects attempting to examine data collected prior to the start of Project REDEAL will be initiated in order to capitalize on the university's previous efforts, e.g. personalized schedule for learners, television as a pacing mechanism, etc.

At the present time, very little data has been collected on any of the above projects. Most of the REDEAL projects are scheduled to be completed sometime between June and August, 1980. Documentation describing the results will be available between July and September, 1980.

Conclusion: A Complex Problem!

Although REDEAL activity has only begun to produce information, two points are already clear from the Project REDEAL efforts. First, distance education is an extremely complex enterprise. Such complexity suggests that the examination of factors which directly impact distance learners will require considerable attention before system-wide solutions are discovered. Moreover, it is doubtful that "blanket" solutions, capable of making dramatic changes across all courses, will be discovered. Second, the attitudes, abilities, and general characteristics of adult part-time learners, especially in an open admissions university, may suggest that motivational strategies may be more effective when they are used differentially and selectively. Attempts to design an educational environment which meets the needs and situations of everyone may be naive. Moreover, a "single design to reach everyone" may be more a cause of the problem than it is a solution.

The advancement and growth of distance education can only grow as workers carefully examine all practices which influence the learner and the institution. Projects like REDEAL are only a step in the direction of the information base necessary for improving distance educational practice. Persons with information related to the motivation and management of the adult learner are encouraged to communicate with the Project REDEAL team, and also persons interested in Project REDEAL results are encouraged to contact REDEAL directly beginning in July, 1980.

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The Role of Research in the Development of the Procedures and Programs of a Comprehensive Distance Education Institution

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BACKGROUND

The Open Learning Institute was formally created on June 1st, 1978 through the passing of an Order in Council by the Provincial Cabinet. (Education is a provincial not a federal responsibility.) The Institute was provided with a mission statement which required it to offer Adult Basic Education Programs, Career/Technical/Vocational Programs and Bachelors Degrees in Arts and Science. Programs were to be offered by distance means. The latter half of 1978 and early 1979 were taken up with planning activity. Course development began in March 1979. The first seven courses, some of which were modifications of courses developed by other institutions, were offered in September 1979. Thirty-eight courses were offered in January 1980. Semester course enrolments in September were 750 and in January 2,300. 10,000 course enrolments are expected in the budget year 1980-81.

British Columbia is the westernmost of Canada's ten provinces. It abuts the Province of Alberta to the East, the American States of Montana, Idaho and Washington to the South, the Northwest Territories, the Yukon and the State of Alaska to the North and the Pacific Ocean to the West. It has an area of 366,255 square miles (3.92 times larger than the United Kingdom) and has a population of 2.49M (1976). As such it has a population density roughly one ninetieth of that of the UK. The Province is traversed north-south by five mountain ranges each with peaks in excess of 10,000 feet. Only 2.8% of the land surface is suitable for arable production, with 55% of the Province classified as forest land. Forestry, the mineral industry, agriculture and fishing are the major resource industries, with tourism and manufacturing playing important roles.

The coastal region enjoys a temperate maritime climate similar to that of Brittany. The Interior and Northern regions have a continental climate with hot summers (35°C+ in the summer is common in the south) and cold winters (-35°C is common in the northern and central regions). This extreme interior climate, remarkably similar to Southern Siberia's, is a significant consideration in the design of a student advising and tutoring system and, in fact, with any aspect of the organization requiring travel.

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British Columbia's population can be characterized briefly as being sparse, aging and mobile. The population is concentrated in a few major centres; Greater Vancouver has a population of 1.1M and Greater Victoria (the capital city) a population of 230,000. Thus some 54% of the total population live in two centres. Only three other centres, Prince George, Kamloops and Kelowna (all in the interior of the province) have populations of over 50,000. The northern half of the province, an area twice the size of the United Kingdom, has a population of less than 50,000. The population overall is an aging one with the 25-40 year old age group having the fastest growth. Between 1976 and 1983 this population, the traditional market for distance education programs, is predicted to increase by some 44.1% to 778,800. The third important demographic characteristic of the population is its mobility. The latest migration figures that are available are for 1971. In that year 28.3% of the provincial population aged over fifteen reported a city of residence different from five years previously. A further 6% were immigrants from outside Canada. These demographic and geographic factors were important considerations in the design of the Institute's programs and delivery system.

The size of the population is such that the maximum enrolment across all programs is unlikely to exceed 30,000 course enrolments per annum. This is roughly equivalent to 3,200 full time students. This predicted enrolment sets an upper limit to the amount of funding that the Institute can reasonably expect to receive and in turn sets limits on the number of courses that can be developed and supported. In recognition of this the Institute has developed courses that can, whenever possible, be used in several programs of study. Thus, an attempt was made to maximize the number of programs on offer but minimize the number of courses necessary (200 to 300 would be a likely minimum) to mount them. Given a maximum enrolment of some 30,000 students and the necessity of developing, perhaps, 300 semester length courses, it is obvious that average course enrolments will be in the order of 100. In a province the size of British Columbia this means that face to face tutorial and advisory support will be the exception rather than the rule. In many cases students will be literally several hundred miles away from another student taking the same course.

British Columbia is well served by conventional post secondary educational institutions. At the present time there are three universities, fourteen comprehensive community colleges, and five provincial institutes (excluding the Open Learning Institute). The community colleges offer a wide range of programs in the adult basic education, career-vocational areas and two-year university transfer disciplines. They are organized on a regional basis and meet, whenever possible, the particular educational demands of their regions. Provincial institutes in contrast have a province-wide mandate and a narrow program focus. It is at the institutes that specialist career, technical and vocational programs are located.

Given the mobility of the province's population the overlapping programmatic responsibilities of the educational institutions and the North America credit system of student certification, British Columbia has developed a complex but efficient system of inter-institutional credit transfer. The basic tenet of the system is that institutions and not students should negotiate inter-course transferability: a student should know in advance the transfer status of any course. (Approximately 2,000 students a year transfer to universities from college academic programs.)

THE ROLE OF RESEARCH

It is obvious from the foregoing that the Open Learning Institute, within the space of nineteen months, has moved from infancy to adult performance - though, of course, not to maturity. Innumerable problems and issues ranging from highly complex (degree structure, delivery component mix etc.) to the relatively simple (mailing systems, print formats etc.) had to be confronted and solved. Further, solutions to individual problems had to fit the institutional context and the institution itself had to fit the broader provincial context of existing institutions, geography, demography and so forth.

The purpose of this paper is to describe the ways in which existing research evidence played or failed to play a useful role. The fact which became painfully obvious to the Institute as it moved forward against its task was that it would expect very little enlightenment from the published results of empirical or even descriptive studies. The reasons for this will be explained in some detail. Of greater value than research to the decision-making activities of the staff were their own direct experiences, the experiences of similar institutions, systematic and comprehensive analysis and common sense.

It is the opinion of the writer that it will be some time before the results of research will have a significant impact on decisions affecting even relatively minor problems faced by a distance learning institution. It will be even longer before research evidence has an impact on more global considerations.

SYMPOSIUM TWO

The California Adult Competency Scale

Background Paper By:

Xavier Del Buono

Robert Heath

Donald McCune

The California Adult Competency Survey

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Accurate information about the educational needs of the adult population is necessary to plan and direct adult education programs. This study was designed to contribute to a rigorous analysis of California's needs in adult basic education. To assess competency performance levels among adults The California Adult Competency Survey (CACS), a set of 130 performance indicators, was developed. The key technical terms in this report are used with the following meanings:

A competency is an attribute (e.g., skill, item of knowledge, attitude) of an individual that has the potential of meeting one or more needs of that person.

A competency on a particular level of performance is functional when it serves to meet a need of a person with particular characteristics (gender, age, ethnic group, etc) in a particular set of circumstances

A performance indicator is an observable manifestation (performance task, test item, etc.) of a specified competency. A competency may be performed on various levels. This assessment study was directed toward adult functional competencies rather than minimal academic competencies.

There are at least three potential uses of this study. First, based on patterns of responses, it is possible to gain a better understanding of the relationship between variations in performance levels and social, cultural, and demographic variables Second, current program priorities and methods can be examined for their appropriateness with respect to various populations. Finally, individual patterns of performance devicits may be used diagnostically to help identify educational needs of adults.

Identification of a performance deficit does not establish the existence of an educational need. The position taken here is that the identification and understanding of a need for a competency and the selection of a corresponding educational service is accomplished with greatest validity through a dialogue between educator and client

Methods

Identification and selection of competencies: The initial stage of the study involved an extensive effort to contact knowledgeable people in the fields of adult education, competency-based education, measurement, and needs assessment.

Through this search of sources, approximately 300 general competency statements were compiled. A general competency statement was stated in a broad manner and lacked specific referents (e.g., "ability to move about in the community").

A clustering procedure was used to eliminate redundancies and group similar statements into subject categories. This resulted in a list of 151 general competency statements.

After these statements were rated and edited by a sample of adult educators and students, they were submitted to a panel of experts associated with adult education This panel further revised the list of general competency statements. From these revised general statements, the panel then developed a list of 576 specific competency statements (i.e., statements using specific, observable terms such as "capable of using the public bus system").

Following the elimination of redundant statements, a rating system and subsequent editing and revision resulted in a set of 176 specific competency statements

Development of performance indicators: Given this list of specific competency statements, the project staff developed one or more indicators to sample each stated competency. These were submitted to three consultants for editing, resulting in a revised set of 142 indicators.

These indicators, grouped into 10 survey forms, were pilot-tested with varied groups of respondents who were encouraged to circle words or directions that were confusing or difficult and to mark editorial comments while answering questions.

The performance indicators were then submitted to a panel for final revision and editing based on content validity, reading level, feasibility of scoring, and overall quality. A second review phase followed, producing a final set of 130 specific competency statements and corresponding performance indicators. The final five categories, and sub-categories of competencies were:

I. Cultural Competencies

- art forms
- customs, ceremonies, and traditions
- modes of communication
- recreation and leisure
- religion, morality, and values
- science and philosophy

II. Economic Competencies

- banking
- budget and record-keeping
- consumer interests
- credit
- deceptive practices
- employment
- insurance

III. Health and Safety Competencies

- first aid
- health hazards
- health literacy

- health services
- hygiene
- nutrition
- safety
- sexuality

IV. Interpersonal Competencies

- communication
- family relations
- self-appraisal
- social behavior
- stress

V. Socio-Political competencies

- citizenship
- public communication systems
- legal processes
- political processes
- public resources
- transportation

The set of 130 performance indicators comprised the CACS. There were 10 forms printed in English and Spanish. Three forms contained interview and performance-task items. The remaining seven forms were composed of multiple-choice, matching and completion items, and were designed for group administration.

Sample selection: A sample representative of the adult population of the State was used in field-testing the CACS. A convergent sampling procedure was employed, using stratification variables taken from the U.S. Census. The variables selected were: geographic region, ethnicity, age, and gender. The choice of these parameters was determined by the availability of recent population data and their relevance to the purposes of the research. A sample of 2,829 adults participated in the survey.

No person in the sample was expected to respond to all 130 indicators Rather, each participant responded to a subset of performance indicators. All participants were assured that their responses would remain anonymous. A sampling control procedure was developed so that as data were received, data collection procedures could be monitored to assure a representative sample.

Collection of data: Materials used for data collection included the survey forms and administration manuals. Each form contained 12, 13, or 14 performance indicators assigned (stratified assignment with competency categories as strata) from the pool of 130. Equal distribution of types of items (multiple-choice, matching, etc.) was also considered in assigning items to forms.

Three of the forms were designed for individual administration by interviewers. Interviewers attended a one-day training session and were provided with administration manuals. The other seven forms were normally administered to groups of adults by a survey monitor. An administration manual was provided. Sampling control procedures and a controlled distribution plan assured representative distribution of survey forms. There were approximately 200 respondents to each form.

Demographic data (questions taken from the U.S. Census) on all respondents provided the project staff with the information necessary to assure an accurately representative sample. Intensive quality control procedures were used to assure the completeness and clarity of responses.

Analysis of data: The first phase of data analysis involved sampling control. As data were collected, the demographic characteristics of the respondents were matched against an "ideal" representative sample and subsequent data collection was targeted to complete the match.

Next, a basic-data computer tape was produced. This tape contained the cross-referenced (by all demographic variables), uncategorized responses of every respondent to every survey question.

Using these data, responses were scored to yield a performance level for each response to each question. Each response was scored as (1) "can perform the task", (2) "cannot perform the task", or (3) "no response" or "cannot score".

Finally, data summaries were produced, yielding tables containing performance levels for each indicator and category of indicators. These results were reported on a state-wide basis also for each demographic variable (region, age-group, educational level, etc.).

Results

On the 130 performance indicators, the total sample achieved a 75% overall "competent" performance level. In general, the major demographic groups with the most severe performance deficits were: young adults (under 30) and the elderly (over 60); ethnic minorities; urban residents; those not employed; those with little formal education; the widowed; those whose parents were not born in the U.S.; and those with non-English language home backgrounds. These groups are not mutually exclusive; severity of performance deficit is compounded for groups who combine several of these characteristics.

Performance levels in the five categories of competency: Performance deficits (and probable need for educational services) are to be found on all socio-economic levels.

Performance on Cultural indicators seems particularly related to minority status, particularly linguistic minorities, and formal education. These performance deficits were concentrated in urban centers, such as Los Angeles, where there is a large number of immigrants.

Performance levels on Economic competencies are lowest among the elderly, young adults (under 20), the unemployed, and those with non-English speaking home backgrounds. In general, the more technical topics (such as insurance and credit) are the least understood.

Performance levels in Health & Safety were higher than in any other category (nearly 80%) correct. Adults whose parents were not born in the U.S. and those who grew up in a home where a language other than English was spoken had lower scores than the average for the total sample. In general, the three most difficult topics in this category were first aid, birth control methods, and fire emergencies.

Interpersonal competencies (e.g., oral communication, recognizing problems in single parent homes, maintaining relationships, recognizing stereotypes, identifying causes of stress) were relatively uncorrelated with socio-economic status. In general, interpersonal performance indicators were most difficult for men, those with little education, the elderly, and those whose parents were not born in the U.S.

In the Socio-Political competency category, ethnic minorities, those at low occupational and educational levels, and those with non-English speaking home backgrounds had the largest performance deficits.

Implications

This study has identified performance deficits of competencies that are thought to be functional (e.g., essential to meeting needs) for most adults. Not surprisingly, the groups with the most severe competency deficits are the ones that have been difficult to reach with conventional educational programs. To establish educational contact with elderly or inform adults who may be without transportation, former drop-outs who have negative feelings about educational institutions, and parents without child care, it seems likely that adult educators will be compelled to invent new delivery techniques. This study provides detailed state-wide estimates of who are deficient, and in which competencies. The essential next step is dialogue. Dialogue can inform adults about what there is to learn and it can also inform educators about the kinds of educational services adults require to meet their needs. We hope this study will encourage and assist such dialogue.

SYMPOSIUM THREE

Continuing Professional Education and the Professional Learning Environment

Chaired By
Arden Grotelueschen
University of Illinois, Champaign, Urbana, Illinois*

The explosive growth of continuing professional education in recent years has been documented by a proliferation of continuing professional education programs and mandating legislation. In response to pressure from both public and private domains, American professionals have turned increasingly to educational programming. Participation in continuing professional education activities is, in short, fast becoming a way of life for professionals as they seek to be responsive to public demands for accountability and to meet the challenges of an increasingly complex world of professional knowledge and practice.

The purpose of this symposium is to present a conception of educational programming that is directly concerned with the nature of the professional work environment. The emphasis is on an exploration of those conditions of a professional work settings that give rise to professional learning opportunities, learning activities, and learning projects. The specific focus of the presentations will be on institutional or group practice where the professional work setting is identifiable as a specific organization such as a clinic, a hospital, or a firm. This focus has implications for educational programmers, administrators, and policy-making personnel who work within the context of organized professional practice settings.

The first paper presents a general justification and rationale for this line of investigation. The concept of the professional learning environment is introduced. Two major components of the professional learning environment--concepts of professional knowledge and concepts of professional agency (i.e., professional control)--are presented and explained. Implications for research, policy, and practice of continuing professional education in institutional or group practice settings are suggested and discussed.

The second paper reviews a variety of recent approaches to understanding organizations. Each approach is discussed in terms of its implications for research into the professional learning environment. Each approach also evaluated in terms of both its feasibility and its promise for contributing to this line of research and development.

The third paper addresses the question of indicators of learning in the naturalistic professional work environment. This is addressed from the perspective of public accountability and from the perspective of opportunities for individual professional development. The problems of developing these indicators are identified and discussed. Examples of indicators are provided and implications for the conduct of continuing professional education are suggested.

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SYMPOSIUM FOUR

Research in International Adult Education

Chaired by

David Williams
Pennsylvania State University

What are the major research issues in international adult education today? This question is addressed by the panel in both perspectives of international focus. The first centers on diversity of research purpose and style in selected regions, while the second attends to the more global sense of international concern.

Thus, three panelists address research in such areas as Finland, Central and Eastern Europe, and the Commonwealth Caribbean. A fourth panelist concentrates on transnational efforts to organize research efforts, for example, through such organizations as UNESCO. All panelists explore directions in research design and dissemination having potential for North American scholars with international interests.

Specific topics for analysis include the following:

1) the diversity of researchable populations.
2) specific problems in organizing research programs.
3) movements for collaborative, multinational research efforts.
4) comparative preferences and policies influencing topics and methods of research.

SYMPOSIUM FIVE

The Conduct of Inquiry Relative to Adult and Continuing Education

Chaired By

James Farmer
University of Illinois, Champaign Urbana, Illinois*

This symposium focuses on methodologies used in the conduct of inquiry relative to adult and continuing education. By methodology is meant the description, explanation, and justification of methods, and not the methods themselves.

A wide variety of methods are currently being used in inquiry relative to adult and continuing education. Methods used in studies reported in the Proceedings of the 1979 AERC in Ann Arbor and other of the field's research publications range from historical analysis to future-invention, from theory building to theory testing, and from mainly qualitative studies to extensively quantitative ones. It would seem that inquiry relative to adult education, as is inquiry relative to social science more generally, presently is in what has been described as a "productive state of near chaos." This symposium will seek to identify ways to maximize the productive aspects of the conduct of inquiry relative to the field and minimize the chaotic ones.

Despite the diversity of names used to describe the methods used in the conduct of inquiry relative to the field, those methods can be classified as being mainly: inductive, deductive, or retroductive. Each of these general approaches puts quite a different emphasis on the logic of proof and the logic of discovery. Each seeks to relate theory and empirical data quite differently in studying phenomena. As such, they constitute quite different methodologies.

In considering the methodologies used in inquiry relative to the field, efforts will be made in the symposium to avoid what has been referred to as the myth of methodology," the idea that if only we hit upon the right methodology, progress will be rapid and sure. Similarly, calling any one technique "the" scientific or "the" scholarly one and denying all others will be avoided. Rather, a "catholicity of outlook" (Kaplan, The Conduct of Inquiry) will be used. That outlook does not imply that every approach is as good as any other or that in any particular inquiry all approaches must be used. In contrast, it seeks to identify the strengths and limitations of the main approaches in use, clarify their presuppositions and consequences, and relate their potentialities to the growing edge of knowledge about the field.

The presenters will illustrate their main points, using examples from research that they have recently conducted or supervised. Moreover, the presenters will attempt to highlight constructively differences between the main approaches so that those in adult and continuing education research seeking to understand different methodologies can be aware of the strengths and limitations of the main alternatives.

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SYMPOSIUM SIX

Adult Education and Allocation Policy in Sweden

Background Papers By:

Kjell Rubenson, Some Theoretical Considerations in View of Allocation Policy

Kim Morck Jackobsen, Allocation Policy in the Nordic Countries

Ove Nilsson, Recurrent Education and Allocation Effects

Lena Borgstrom, Drop-out in Municipality Adult Schools in View of Allocation Policy

Robert Hoghielm, the Teaching Process in Municipal Adult Schools in View of Allocation Policy

Lars-Erik Olofsson, Recruitment in view of Allocation Policy

Aludt Education and Allocation Policy in Sweden

Chaired By:

Kjell Rubenson
Stockholm Institute of Education, Stockholm, Sweden*

Adult education in the Nordic countries has, in the 1960's and 70's, become an integrated part of these countries' economic and welfare policy. During this period the allocation goal has become the overwhelming goal of adult education. This goal is defined as equalization of certain resources (political, economic, cultural and social).

The principal purpose of this symposium is to indicate a theoretical framework for conducting research on adult education and allocation policy as defined above. Our intention is to present a series of studies ranging from macro aspects (the influence of government policy) to micro aspects (the teaching process) of allocation policy.

Below is a short summary of the papers that are being presented at the symposium. The papers will be published in the report: Höghielm, R. & Rubenson, K. (Eds.) Research on Adult Education and Allocation Policy in Sweden. Stockholm: Department of Educational Research, SIE, Studies in Education and Psychology:9, Liberläroredel, 1980.

Kjell Rubenson

Some Theoretical Considerations in View of Allocation Policy

The lack of and need for established theoretical frameworks in adult education is becoming more and more obvious as adult education has come into the public zone. Knowledge production in the discipline has been bound to or reduced to phenomena concerning the acts of learning and cognition. One consequence of this perspective has been the lack of adequate conceptualization of the adult educational phenomena, which links explanation of economic, social and cultural factors in society to the explanation of the nature of method, content, techniques, devices and processes in adult education. The paper to be presented at AERC is intended to give a broader framework for analyzing allocation policy in adult education.

Allocation policy in adult education is treated as a part of a broader problem area "social and educational change." The strong notion among researchers in adult education is that theoretical constructs developed to explain the function of formal educational systems have little value when looking at adult education and social change. However, focusing on formal educational systems, some discoveries have been made that are of general importance. For example, in order to explain collective events such as reforms that come about as a result of human interaction, learning theories are of little value as they have been developed to explain individual behaviour (Merrit & Coombs, 1976:260). An empirical educational theory must be based on data concerning the educational process as it exists in reality and not on analysis of what researchers think these processes ought to be as education fulfills other functions then the achievement of instructional goals (Lundgren, 1979:42). The limitation of the consensus paradigm for studying socio-economic, cultural and educational change has been underlined (Paulston, 1976:384). To overlook these aspects when dealing with adult education and social change will create a situation where analysis most often becomes naive and at the best utopian. Following the sound route set by Jensen (1964:105) an attempt is therefore made to borrow and integrate theories developed in other disciplines then adult education.

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The disadvantage of depending on theories developed in eg. educational sociology or anthropology is that these disciplines so far have almost totally neglected adult education. It is argued in the article that incorporating the existent knowledge about adult education could hardly justify any major shifts in the prevailing theories on education in industrial societies although some adjustment may be called for. Special attention is given to ideology, power and perceived group self-interest as key factors in influencing how adult educational agencies select, classify, distribute, transmit and evaluate the educational knowledge it considers to be public. Our interpretive framework is organized around the assumption that the effects of the allocation policy both on participants and society are greatly determined by the institutional rules defining (a) who gets recruited to what kind of adult education, and (b) to what extent the different programmes and self-directed learning contribute to the creation of resources (economic, cultural, social and political). The assumption here is that the inner functioning of adult education is linked to the external functions. Finally, departing from the theoretical framework, some key areas for research on allocation policy in adult education are identified.

Kim Mörck-Jackobsen, The Nordic Academic of Adult Education

Allocation Policy in the Nordic Countries

The discussion departs from an overall view of where a country's allocation policy in adult education is viewed in relation to its general economic, social, and welfare policy.

The crucial aspect is the link between the general philosophy (the normative pattern) as expressed in documents on allocation policy and the political will to institutionalize the normative pattern. Thus an allocation policy in adult education needs to contain strategies for selectively financing programmes, recruitment including outreach activities, study subsidies, development of content and methods.

Although the allocation goal has grown and become of greatest importance it still coexists with other goals, primarily the service-policy goal (satisfaction of individual preferences). It is patently obvious that the various goals can come into conflict with one another which is why the goals need to be defined and analyzed with reference to consequences and conflicts. It is therefore important to spell out the expected effects of the policy in relation to assigned resouces and apparent goal conflicts.

The paper to be presented at AERC is based on data for the total area of adult education in the Nordic countries (Denmark, Finland, Island, Norway and Sweden). The goals of adult education in each of these countries are analyzed with reference to conflicts and institutionalization of the allocation policy. In all of the countries one can find some steps taken in order to fulfill the allocation goal. Experiments with outreaching activities, labour market programs for exposed groups, study subsidies and special programmes for disadvantaged groups are some examples. The effects of these reforms as described in national evaluations are presented and discussed. The review shows that the anticipated effects were unrealistic in relation to the measures that were taken in order to achieve the allocation goal.

Thus there exists a discrepancy between the normative pattern and the institutionalization of this resulting from the political decisions that have been taken by Parliament. One has also underestimated the difficulties in changing the institutional values held by the organizers of adult education. Finally some necessary prerequisities for allocation policy in adult education are outlined on the bases of positive and negative experiences in the Nordic countries.

Ove Nilsson   Stockholm Institute of Education

Recurrent Education and Allocation Effects

In 1977 there was a major reform of higher education in Sweden. The idea of recurrent education (r-e) emerged from the 1968 Commission (U 68) and came to be viewed as a cornerstone on which to build the future of higher education in Sweden. The purpose of the paper given at AERC is to present some experiences from the project "The Adjustment of Universities and Colleges to Recurrent Education," which forms part of the National Board of Universities and Colleges' program for the follow-up of higher education reform. This paper differs from the others presented at this symposium in that it deals entirely with adult students in higher education, a sector which, in Sweden generally, is not seen as a part of adult education and where the allocation policy is less pronounced. The project is, however, of interest as it gives a theoretical framework for looking at the process of institutionalization of a change in the normative pattern (the idea of recurrent education). This is a topic of general interest for our understanding of the effects of allocation policy in adult education. Further r-e is often referred to as an instrument for acquiring a more equal recruitment into higher education.

In Olof Palme's famous speech at the meeting of ministers of education at Versailles (1969) where the concept of r-e was first introduced, he stated that:

> Recurrent education will help us to achieve equality.... Careers that start in the workshop and lead to leading positions will become more and more common.

Besides equality, Palme's speech points to the close relationship between the economic institution and the educational institution.

The purpose of our study has been to see how far down in the educational system the principle of r-e is anchored. Following the line from central authority over universities and institutions down to the individual professor, the data shows that it was only at the policy-level that the concept was really understood and anchored. When the idea comes to be translated into practical activities, one finds that its true meaning has not been sufficiently elucidated and that the necessary preconditions have not always been satisfied. Owing to the vagueness of the concept, people at the lower level were found to give old routines new names in order to make them harmonize more closely with the new sounds. At the institutional level, we found very little awareness as indicated by action of the allocation aspect of r-e and the close link between r-e and the economic institution. The explanation for the discrepancy in the system is to be found in the prevailing institutional values.

Concerning the relationship between the labour market and r-e, our analysis shows that the increasing segmentation into routine occupations and system-developing tasks creates a situation where a system of r-e will widen the differences existing between various groups entering the labour market.

The results of the study show that there is an obvious risk of what could be termed "paradoxes of planning" (Abrahamson et. al., 1978) which means that the results of a certain planning measure turn out to be the opposite of what was expected, i.e. instead of leading to a redistribution of resources, r-e might instead widen the gap.

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Drop-out in Municipality Adult Schools in View of Allocation Policy

Municipal adult schools (kom.vux) have existed since 1968. They offer instruction in accordance with the uniform national curricula for the lower and upper secondary school levels but with considerably fewer teaching periods allocated. Guidelines for the design and organization of kom.vux were laid down in the 1967 Bill concerning the reform of adult education. In this Bill adult education was regarded as a way of harnessing the "educational reserve" and as an opportunity for persons who would have liked to change the focus of their studies during youth education but had been prevented from doing so by a certain rigidity on the part of the system. It was also a question of development and economic growth, since there was a need for well-educated workers. The Bill, however, does not mention the under-educated and obviously it was not with them in mind that the new scheme of adult education came in 1967 to be established on practically the same lines as youth education.

With a reorientation in adult education policy in the 70's from the service political goal towards the allocation goal, there followed a shift of emphasis in that under-educated persons came to constitute the main target group not only in adult education in general but also in municipal adult education. The change in policy forms the stating point for the GRUV project (Elementary School Studies for Adults) that has been undertaken in order to evaluate the benefits of adult education to persons with short-term formal education, the difficulties encountered by these students and the need for changes. One of the aims of this project was to shed light on the drop-out problem. The article presented at the AERC reports some of the findings from the drop-out study. The 84 evening teaching groups in English, mathematics and Swedish included in the study were followed for the numbers of terms their courses lasted.

Three-quarters of the participants could with regard to formal schooling be classified as under-educated (less than 9 years). Thus, from an allocation perspective, the recruitment could be seen as successful. However, this was not the case as the results show that two-thirds or more of the students that started courses failed to complete them. The questionnaires as well as follow-up interviews indicate that withdrawal was often associated with dissatisfaction or difficulties regarding the teaching situation. A very large proportion of the drop-out students had had difficulties in following the instruction. The answer to the high drop-out rate can't be detected by only looking at the data from the participants and teachers; the structure of the educational system must be considered as well.

The change in policy could be seen as a change in the normative pattern. As Holmes (1965:78) points out, new norms rarely, if ever, become effective unless accompanied by institutional innovation. In other words, normative innovations are only successful when accompanied by effective organization. The institutional changes that have taken place following the allocation goal have to do with the link between the target population and the educational institution. Instead of waiting for the student to come, the institutions have responded to the changed policy by being much more active in the recruitment process. As the rest of the system (the actual teaching process) operates in the same way as when the target group was the "educational reserve", the changes in the selection process have led to a state of normative inconsistency. The explanation for this inconsistency is that municipal adult schools are a part not only of the adult educational sector where the allocation policy is formulated but also of the formal school system (same curricula as youth education) where the allocation aspects are less pronounced. Despite a change in policy, the institutional values are very much the same as before.

The selection at entry through the admission system has in municipal adult schools turned into a selection by failure. For the evening students in municipal adult education, the system has developed into what Clark (1960) has called a "cooling-out function"; i.e. students are not rejected in open competition with other students, but instead meet hidden and informal forces.

One conclusion drawn from the study is that kom.vux seems to operate in the same way as compulsory schooling as far as the sorting out of pupils is concerned. Drop-out appears to be the counterpart of disciplinary problems and poor marks in compulsory schooling. Kom.vux was from the beginning an education for the reserve of talent and it has, in spite of changed goals, continued to be so.

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The Teaching Process in Municipal Adult Schools in View of Allocation Policy

The effects of a state of normative inconsistency was given as one tentative explanation for the high drop-out rate found in the GRUV project (see above). The consequences of this inconsistency for the teaching process is further explored in the US-VUX project (Teaching Process and Drop-Out in MAS).

The purpose of the paper presented at the AERC is to present a framework for studying the teaching process and to look at the results with regard to allocation effects.

Adult education like compulsory schooling has an unavoidable relationship with the larger society in that the normative and power systems of the schools are not only part of the microsystem of the educational institution but also of the macrosystem of the whole society (cf. Eggleston, 1977:11). There are many different ways to classify the microsystem. In this article we are following a classification system suggested by Lundgren (1979:25) to show how society's norms and values come to be reflected in municipal adult education (see diagram 1).

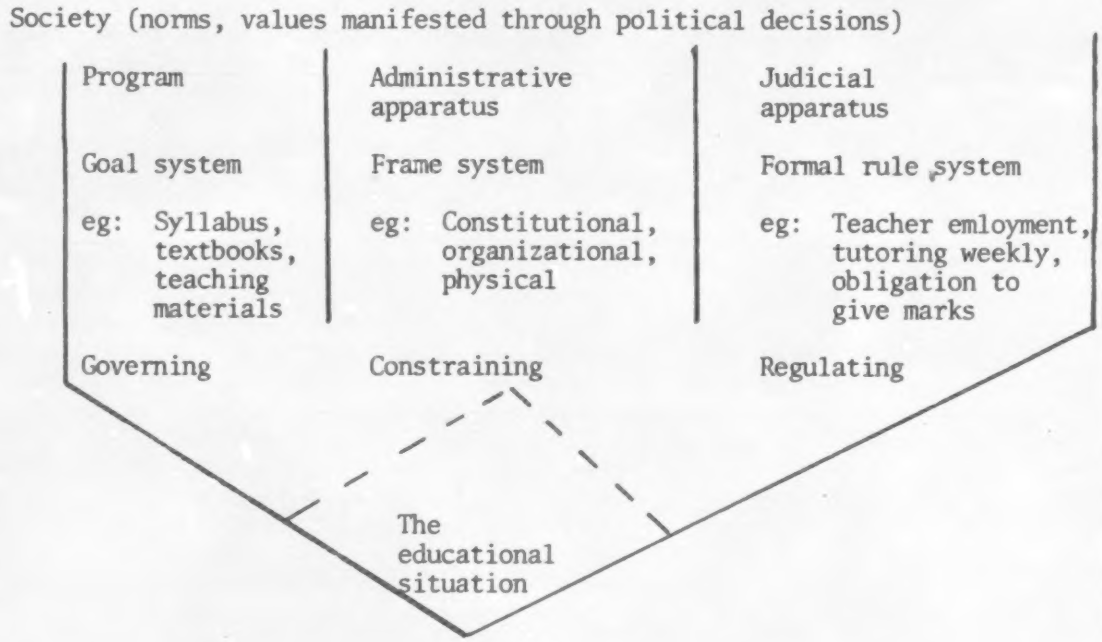
Society (norms, values manifested through political decisions)
Program
Administrative apparatus
Judicial apparatus
Goal system
Frame system
Formal rule system
eg: Syllabus, textbooks, teaching materials
eg: Constitutional, organizational, physical
eg: Teacher emloyment, tutoring weekly, obligation to give marks
Governing
Constraining
Regulating
The educational situation

Diagram 1. Conceptual Model

The model should be seen as a guide to understanding conditions under which the "actors" operate. Further, it reveals the limitations of relying totally on theories of learning when looking at instruction. The contextual factors (see diagram 1) explain why, despite intensive training of instructors, one very seldom can detect any major change in the teaching process.

In order to map out and explain the teaching process, both quantitative and qualitative data were collected. The data collection consisted of an intensive and an extensive phase. The intensive involved nine classes in Swedish and nine in mathematics. Data was collected by classroom observation (240 lessons), tape recordings (30 lessons); questionnaires and interviews were used at various times with both participants and instructors. The extensive phase consisted of questionnaires to a representative sample of teachers (n=700) and all principals of MAS. A distinction is made between psychological and sociological factors. The former applies to the participants and the instructors while the latter is used to investigate the microsystems (see diagram 1). A picture of the social factors was drawn by describing the local school administration and their working conditions. Observations were made of the curriculum as expressed and interpreted in textbooks, the content of instruction and the choice of working rules. The psychological factors were strongly linked with the individual's environment; therefore the participants' social, cultural, political and economic resources were mapped.

In the instructional situation different types of working conditions were observed such as degree of individualization, different steering groups, networks of communication and the "climate" of the classroom. Other aspects included the lesson planning and the study place as well as the participants' study intensity and study results.

In addition, the background data on the participants' own perceptions of their behaviour during the process of instruction have been collected. With regard to the tutors, two types of data were gathered: estimates of job satisfaction and interpretation of the possibilities to adapt to the expectations of different groups of participants. As was pointed out earlier, the allocation policy is directed towards an equalization of economic, political, social, and cultural resources. Leaving out economic resources (where the system of taxes and subsidies is the major instrument), the question is to what extent are the other three resources created in MAS. Analysis of the observations and recordings shows that the tools necessary to understanding cultural, political and social actions are not transmitted through MAS. Looking at participant learning with regard to subject knowledge, communication skills and the what the participant learns about his own learning, we find very little in the instructional process that would result in strengthening the participant's responsibility or self-confidence. The data show that the results cannot be explained by lack of insight or understanding among the instructors. The microsystem creates such limitations that most of the instructors, despite various attitudes toward teaching, come to use much the same types of tactics.

Unless methodological improvements are accompanied by structural changes inside the educational system (which has to be done through political decision-making), the allocation effects will continue to be very small.

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Recruitment in View of Allocation Policy

The aim of allocation policy in adult education is intended to break the vicious cycle by which cultural capital is added to cultural capital throughout the individual's life cycle (cf. Bourdieu, 1977:493). The crucial question then becomes to what extent and under which circumstances (with regard to adult education and structural factors in society) can adult education decrease the gap that has been developed through upbringing and earlier education. The limitation in almost all recruitment studies in dealing with this question is that one has been hampered by the lack of longitudinal data. In order to create possibilities for research of this kind, the Department of Educational Research at SIE has started to develop a data bank.

The empirical part of the paper presented at AERC is based on longitudinal data for 3,650 individuals who completed compulsory school in 1966. The data base contains, among other things, data of social background, completed education and occupational activities from 1965 to 1977 when the individuals were 28 years old. The data were collected from registers of various kinds as well as questionnaires on different occasions.

The Swedish educational system enables the individuals to choose various routes from compulsory school to university level education. In the paper individuals who have chosen the traditional way, i.e. compulsory school, upper secondary school and university-level studies without a break (group A) are compared with individuals who, directly after compulsory school, worked for at least one year before continuing their studies (group C). As a result of various adult educational reforms, group C has been able to continue higher education without being qualified in the traditional way, i.e. as group A has been. The study shows that increased opportunities to gain entrance to higher education have contributed to social equalization, insofar as more individuals who earlier were not recruited to higher education are now being recruited. However, the data indicates that some form of tracking has occurred in that a greater portion in group A than in group C are found in the prestigious lines.

An individual's occupation can presumably give a good picture of the person's economic, educational and social status. In the article it is shown how changes in the occupational structure over time can illustrate long-term effects of education. By occupational structure we mean here the composition of a specific group with regard to occupational status expressed according to Roe's (1962) classification system. The same procedure is used to describe the group which participated in some form of adult education in 1977 and which up to that time had changed its occupational structure. For instance, it can be noticed that the group which participated in adult education in 1977 (then 28 years old) has had, up to that time, a more favourable development of its occupational structure than the group that did not participate. Consequently, those who take part in adult education are those who, to a great extent, already have had a favourable development of their occupational structure. This condition is not in agreement with the aim of the allocation policy in Sweden. The use of various forms of adult education by different social groups with regard to investment and consumption is discussed in light of (1) the cultural capital gained through upbringing and formal schooling and (2) their life situation as adults. Finally, a few research problems which have come to light in connection with this unique (at least for Sweden) data base are discussed.

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